

IN THE UNITED STATES DISTRICT COURT
FOR THE NORTHERN DISTRICT OF ILLINOIS
EASTERN DIVISION

3 UNITED STATES OF AMERICA,)
4 Plaintiff,)
5 v.) No. 19 CR 00669-4
6 CHRISTOPHER JORDAN,) Chicago, Illinois
7 Defendant.) December 1, 2022
) 8:45 a.m.

VOLUME 2
CPT OF PROCEEDINGS - Jury Trial
HONORABLE EDMOND E. CHANG, and a Jury

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1 (Proceedings heard in open court. Jury out.)

2 THE CLERK: 19 CR 669, USA versus Christopher Jordan.

3 THE COURT: Good morning. Let's get appearances,
4 please.

5 MR. SULLIVAN: Good morning, your Honor. Matthew
6 Sullivan, Lucy Jennings, and Christopher Fenton on behalf of
7 the United States.

8 MS. MOYNE: Good morning, your Honor. Parvin Moyne,
9 Jim Benjamin, Megan Church, and Annie Evans on behalf of
10 Christopher Jordan.

11 THE COURT: Okay. All right. Good morning.

12 All right. You had some matters for the record.

13 MR. SULLIVAN: Yes, just some housekeeping matters, a
14 couple things. During the government's opening statement,
15 we're planning to use a demonstrative that I'll put up on the
16 ELM0. Just for the record, I've shown it to defense counsel,
17 and there's no objection from them to the demonstrative.

18 Number two, I think the Court made reference to this
19 during the pretrial, but I just want to invoke the rule on
20 witnesses explicitly on the record, that any fact witnesses
21 should not attend --

22 THE COURT: Yeah, right. We will sequester fact
23 witnesses.

24 MR. SULLIVAN: And then I think finally, as it
25 relates to testimony by the witness from Monument Economics,

1 Mr. Silva, Professor Venkataraman if he testifies, and
2 Professor Ready if he testifies, the parties have conferred
3 and agreed that we will not get into the amount of money that
4 has been paid to any of them, any of the witnesses. So they
5 will be asked whether they were paid for their work, but the
6 amounts, neither party will either elicit or go into on direct
7 or cross.

8 THE COURT: Okay. That's in agreement with the
9 defense?

10 MS. MOYNE: Yes, your Honor.

11 THE COURT: All right.

12 MR. SULLIVAN: That's all. Thank you, your Honor.

13 THE COURT: You want to avoid the gasps that we heard
14 from the summer trial, is that what you're going for?

15 MR. SULLIVAN: Tease out the summer versus the fall
16 trial.

17 MS. MOYNE: That has changed --

18 THE COURT: Okay. That works. And then have you
19 actually checked the document camera? Why don't we do that.

20 Is there anything else?

21 MR. SULLIVAN: No, your Honor.

22 THE COURT: Okay. For the defense?

23 MS. MOYNE: No, your Honor.

24 THE COURT: Okay. So you can take a break while we
25 test this out. We'll start at 9:00.

1 (Recess from 8:51 a.m. to 9:07 a.m.)

2 (Proceedings heard in open court. Jury in.)

3 THE COURT: All right. Please be seated.

4 All right. Good morning, ladies and gentlemen.

5 Thanks for trekking in on the frigid, frigid morning that we
6 just had. And, yes, I think everyone is in their right seat.
7 The challenge to you is next time to come into the courtroom
8 lined up in a way that gets you right to your seat without
9 having to walk over each other. We'll see if we can
10 accomplish that.

11 All right. We are ready to start opening statements
12 in the case. As a reminder, opening statements themselves are
13 not evidence. This is a chance for the lawyers to tell you
14 what they expect the evidence will be, but the statements are
15 not themselves evidence.

16 All right. For the government?

17 MR. SULLIVAN: Thank you, your Honor.

18 OPENING STATEMENT ON BEHALF OF THE GOVERNMENT

19 MR. SULLIVAN: Members of the jury, good morning.
20 This case is about fraud in the worldwide markets for gold and
21 silver. The defendant, Christopher Jordan, was a precious
22 metals trader at two large banks in New York City: JPMorgan
23 and Credit Suisse. And his job was to buy and sell gold and
24 silver. And the evidence at this trial will show that between
25 2008 and 2010, the defendant defrauded the markets for gold

1 and silver by cheating and scamming others in the market.

2 How did he do it? The defendant placed large orders
3 for gold or silver that he never actually intended to trade.
4 These orders appeared legitimate because no one else in the
5 market knew that the defendant always wanted to cancel the
6 orders before they could be executed.

7 And with these large deceptive orders, the defendant
8 sent false signals to the market because the defendant wanted
9 the market to think that he was doing one thing when in
10 reality he wanted to do the exact opposite: A bait and
11 switch. For example, make the market think you're a big
12 seller when you really actually want to buy, and vice versa.
13 And the defendant did this to push gold and silver prices up
14 and down in order to benefit himself and to deceive the
15 market.

16 What were others in the market deceived about? They
17 were deceived to think they were paying a fair market price
18 when in reality they were overpaying when they bought, or they
19 were selling too cheap when they sold.

20 And so for that conduct, the defendant is charged
21 with fraud, charged with cheating people, deceiving them to
22 make money because the evidence will show that the defendant
23 engaged in the scheme to defraud, to trick others in the gold
24 and silver markets, to rip them off, and to make money for
25 himself and the banks he worked for.

1 So this morning, I'll preview for you some of the
2 evidence that I expect you'll hear and see during this trial.
3 And a key piece of that evidence will be testimony from an FBI
4 special agent who interviewed the defendant and confronted him
5 with specific episodes of his trading. You'll hear testimony
6 that the defendant talked to the FBI about his gold and silver
7 trading for several hours. And in those conversations, the
8 defendant admitted to the FBI that he placed fake orders into
9 the market to wait and see if other people would take the
10 bait.

11 You'll hear testimony that the defendant confessed to
12 the FBI that he placed these deceptive orders to mislead the
13 market, to outperform other traders, and to get the best
14 prices on his trades. And so in a moment, I'll outline more
15 of the evidence of the defendant's trading that I expect
16 you'll see in this case including more about what the
17 defendant confessed to the FBI, but first let's discuss the
18 mechanics of the defendant's scheme and how it actually worked
19 in practice.

20 So this case is about gold and silver, also called
21 precious metals, that were traded on something that's called a
22 commodities exchange which is like the stock market. The
23 difference is that instead of trading stocks of companies like
24 Ford or Google or Apple, you're trading commodities.

25 What's a commodity? It's just a financial term for

1 something that you can hold, something tangible, so think
2 corn, sugar, oil, and in this case, gold and silver. All of
3 them are commodities.

4 Now, there are different ways to trade, to buy and
5 sell gold and silver, but what's relevant for this case is
6 that the defendant traded something called a futures contract
7 and that he traded them electronically from behind a computer
8 screen. And you'll hear more at trial about futures contracts
9 but for now, all you need to know are three things: One, it's
10 a financial product that can be bought or sold from your
11 computer; two, its prices moved based on supply and demand;
12 and, three, that price can be manipulated.

13 So the defendant is charged with defrauding the gold
14 and silver futures markets that were operated by the Chicago
15 Mercantile Exchange, also called the CME, which is located
16 just a half mile from this courthouse over on South Wacker.
17 The CME's markets are electronic, meaning that anyone with a
18 computer can trade gold and silver futures contracts from
19 anywhere around the world.

20 And in the gold and silver futures markets, like the
21 stock market, prices move up and down based on supply and
22 demand, how many buyers and how many sellers there are at a
23 given time. And also importantly, these markets are
24 anonymous. So no one knows who is placing which orders to buy
25 and sell gold and silver futures contracts at any one time.

1 And you will learn that this fact, that the markets are
2 anonymous, is key to how the defendant was able to scam others
3 and make money.

4 So turning to the defendant's deceptive trading
5 scheme, the evidence will show that the defendant placed huge
6 orders into the gold and silver futures contracts markets that
7 he never intended to trade, orders he decided at the time he
8 placed them to cancel before they could be filled. The sole
9 purpose of these large orders was to trick others in the
10 market, make them believe that there was more supply or more
11 demand for gold and silver than there actually was.

12 Why did he do that? Because the defendant had other
13 orders out there in the same market, orders that he did want
14 to trade, and his large deceptive orders helped him do that.
15 This trick, this scam, this deception, I expect you may hear
16 referred to a couple different ways during this trial
17 including spoofing or noneconomic trading, but no matter what
18 it's called, the evidence will show that the scheme itself was
19 sim- -- excuse me, simple and followed four steps.

20 So let's walk through those four steps using a real
21 example from a trading chart that shows the defendant's
22 trading and which you'll see more of throughout this trial.
23 And so I'm going to put it up on the screen and write down the
24 four steps as we walk through them. And I suggest that you
25 write them down too because you're going to see this pattern

1 over and over again since it's how the defendant deceived and
2 defrauded the market.

3 Your Honor, if we could pull up the ELMO. Perfect.

4 Thank you. Out of focus. Perfect. All right.

5 So, members of the jury, to begin, you will hear
6 testimony that walks you through in detail how these charts
7 work and what the different numbers and figures mean, but just
8 to orient you briefly, on the left-hand side here, the Y axis,
9 these are just different price levels where you can buy and
10 sell futures contracts. And then on the bottom here, the X
11 axis, this is just time moving from left to right.

12 All right. So the four steps. Step one is called
13 the genuine order. So this is the order that the defendant
14 actually wants to fill. He genuinely wants to buy or sell at
15 a specific price. In this example, this is an order to buy.
16 It doesn't have to be. You'll see examples where the genuine
17 order is an order to sell. So step one, genuine order.

18 Step two, the deceptive order. So on the opposite
19 side of the market from the genuine order, the defendant
20 places a large order. This is the red dot. So if the genuine
21 order is to buy in this example, the deceptive order is to
22 sell. And so this order, this is the trick. This is the
23 deception. You may also hear this referred to as the spoof
24 order. The defendant didn't place this order because he
25 really intended to sell. He placed the order to deceive the

1 market. Its only purpose is to push the price down -- which
2 you see here in the blue shading and the blue line -- towards
3 the genuine order on the opposite side of the market. And
4 remember, these markets are anonymous, so anyone looking at
5 the market wouldn't know that the defendant has a genuine
6 order on one side and this large deceptive order on the other.

7 Now, for this scheme to work, this deceptive order
8 has to be large. And you'll see examples of times where the
9 defendant's deceptive order made up 40, 50, 60 percent of the
10 visible gold or silver market. That means that just one
11 person, the defendant, was basically half of the gold or
12 silver market at a given time. All right. So that's step
13 two.

14 Step three, the fill. So other people in the market,
15 they see the defendant's large deceptive sell order get
16 placed, and they believe wrongly that it's a genuine order to
17 sell, and they take the bait. They react. The market price
18 moves lower, in the opposite direction of the deceptive order,
19 and the defendant gets his genuine order filled. So these are
20 the green triangles right here. So someone else in the market
21 is trading with the defendant's genuine order and trading at
22 the price that the defendant always wanted. So that's step
23 three.

24 Step four is the cancel. So quickly after the
25 genuine order is filled, the defendant cancels his deceptive

1 order. This is the circle with the red X through it. Why
2 quickly? Because the defendant never actually intended for
3 that order to be filled. That's the last thing he wants.
4 It's just there as a scam to move the price down towards his
5 genuine order. So -- and the defendant, he cancels this
6 deceptive order because that was always the plan. He didn't
7 change his mind and suddenly decide, "Oh, I don't want to sell
8 anymore." He never intended to sell.

9 And so, ladies and gentlemen, just to recap, the
10 evidence will show that there are four steps to the
11 defendant's trading scheme, and you'll see them over and over.
12 So number one, the genuine order; number two, the deceptive
13 order; number three, the fill; and, number four, the cancel.
14 And you will see that these four steps, they can happen in
15 just a matter of seconds.

16 Your Honor, you can take down the screen. Thank you.

17 So, ladies and gentlemen, that's the four steps. But
18 how do these large deceptive orders actually move the market
19 price? Supply and demand. The market price moves because
20 others in the market are tricked, tricked into thinking that
21 the deceptive order is a real, genuine order, but it's not.
22 And that is the bait and switch.

23 So for example, when the market sees a large order to
24 buy, the price typically goes higher. Think about buying a
25 house. If there are a lot of people interested in buying a

1 particular house, it will probably sell for a higher price.
2 The price is higher because there's more demand, more people
3 who want to buy the house than there was supply.

4 The same is true on the opposite side of the market.
5 When the market sees a lot of people who say they want to
6 sell, a large sell order, for example, the price goes lower.
7 Sticking with the house example, if there are a lot of houses
8 for sale on a particular block but not as many people who want
9 to buy those houses, this will drive the price down. The
10 price is lower because there's more supply of houses than
11 there is demand to buy them.

12 And so bringing it back to this case, the defendant
13 injected fake supply and demand into the market with his large
14 deceptive orders so that he could get a better price. And
15 when that trick worked, there was someone else on the other
16 side of the deal who lost. Another trader bought from the
17 defendant. They overpaid. The trader who sold to the
18 defendant? They sold for a cheaper price than they should
19 have. Either way, someone was ripped off.

20 Now, these large deceptive orders are real orders out
21 there for the world to see, but the key point is this: What
22 they represent is fake because they send a fake signal to the
23 market that the defendant actually wants to buy or sell. The
24 fact that the orders were real orders is exactly why this
25 deceptive scheme worked. If other traders could tell that the

1 orders were fake, no one would have been tricked.

2 So that's the mechanics of the scheme. So now let's
3 discuss some additional evidence and testimony I expect you'll
4 hear during trial and going back to what the defendant said
5 and admitted to the FBI when they met with him to discuss his
6 trading.

7 So you will hear testimony from FBI Special Agent
8 Jonathan Luca. He was the lead case agent for an
9 investigation into trading activity in the gold and silver
10 markets. You'll hear from Special Agent Luca that he began to
11 look into the defendant's trading activity including specific
12 episodes of his trading. And as part of the investigation,
13 Special Agent Luca then went to speak with the defendant to
14 ask him about his trading to try to understand what was going
15 on. So back in November of 2018, Special Agent Luca met with
16 the defendant twice, first meeting the defendant at his home
17 in the morning and then, after a break, meeting him later that
18 afternoon at a local Starbucks.

19 When they met, Special Agent Luca presented the
20 defendant with specific examples of the defendant's trading,
21 trading in that four-step pattern we just looked at. In
22 total, Special Agent Luca talked to the defendant for several
23 hours that day about the defendant's gold and silver trading.

24 So what did the defendant tell the FBI? You'll hear
25 testimony that the defendant explained to the FBI that

1 spoofing was the practice of placing fake orders into the
2 market and waiting to see if other people would take the bait.
3 You'll hear testimony that the defendant admitted to the FBI
4 that he did just that. The defendant confessed to the FBI
5 that he placed orders he intended to cancel before execution,
6 admitted that he engaged in spoofing in order to get his other
7 genuine orders filled.

8 You'll hear testimony that the defendant told the FBI
9 that at times, he spoofed to mislead the market, to outperform
10 other traders, and to get the best prices on his trades. So
11 you'll hear testimony that the defendant explained to the FBI
12 how he did this. He told them he would place a small order on
13 one side of the market which he wanted to get filled. Then he
14 placed a big order on the other side of the market which he
15 intended to cancel. The defendant did all of this with the
16 goal of getting the small order filled.

17 Sound familiar? It's the four-step pattern we just
18 covered. So this and other testimony is what I expect you'll
19 hear from Special Agent Luca.

20 You will also hear testimony -- or excuse me,
21 evidence that back in 2010, so years before the FBI showed up,
22 the defendant was questioned under oath by the Commodity
23 Futures Trading Commission, which is referred to as the CFTC.
24 And the CFTC is the part of the federal government that
25 oversees and regulates the commodities futures markets

1 including markets for gold and silver futures contracts that
2 the defendant traded.

3 And so the CFTC in 2010 asks the defendant the same
4 thing that the FBI asks him eight years later, namely, "Did
5 you place orders that you didn't intend to execute?" And
6 despite it being the same question, the evidence will show
7 that the defendant gave a different answer. He told the CFTC,
8 "No."

9 In addition to the statements to the CFTC, you will
10 also see electronic chat communications between the defendant
11 and his peers in the finance industry that occurred in 2008,
12 2009, 2010, so the same time period as the trading activity
13 that is at issue in this trial. And in these chats, you'll
14 see how the defendant described his trading including how he
15 placed a large order on one side of the market in order to get
16 his small order on the other side filled. So here we are back
17 again at the four steps.

18 So that's some of the evidence. Let's talk a little
19 bit more about the witnesses that I expect you'll hear from
20 during trial. So in addition to Special Agent Luca, you'll
21 hear testimony from compliance officers at JPMorgan and Credit
22 Suisse, the two banks where the defendant worked as a trader.
23 These compliance officers will tell you that deceptive trading
24 was never permitted while the defendant was a trader at either
25 of those banks.

1 You'll hear from David King who was the compliance
2 officer at Credit Suisse. He will tell you that the defendant
3 received training when he first joined Credit Suisse. And one
4 of the first topics covered in that training was market
5 manipulation and how creating a false and misleading
6 appearance of trading activity was prohibited at Credit
7 Suisse.

8 You'll hear much the same from the JPMorgan
9 compliance officer, Mark Catana, about the policies and
10 trainings at JPMorgan that prohibited market manipulation.

11 And so in addition to the bank compliance officers,
12 you'll hear from Erin Middleton. She works in the market
13 regulation department at the CME, the exchange where the gold
14 and silver futures contracts were traded. And Ms. Middleton
15 will tell you that the CME has always prohibited placing
16 orders on its exchanges that a trader did not intend to
17 execute. She will explain that the CME's rules require that
18 every order you place is a genuine order to buy or sell. If
19 you place an order to buy, you must genuinely want to buy. If
20 you place an order to sell, you must really want to sell.

21 And finally, another witness you'll hear from is a
22 trader named Travis Varner who was on the wrong side of the
23 defendant's deceptive trading. He will tell you that he
24 relied on the fact that all orders on the CME are supposed to
25 be placed with the intent to trade. And Mr. Varner will

1 explain that the defendant's large deceptive orders altered
2 the picture of supply and demand in the market and were
3 capable of influencing Mr. Varner's decision to trade.

4 So, members of the jury, I want to thank you in
5 advance for your service and for your patience during this
6 trial. After you've heard from all of the witnesses, my
7 colleagues will speak to you again and at that time, they will
8 walk you through the evidence that you've heard and seen
9 including the defendant's confession to the FBI and tell you
10 why that evidence proves beyond a reasonable doubt that the
11 defendant engaged in fraud. Then we will ask you to return
12 the only verdict that is consistent with the evidence:
13 Guilty. Thank you.

14 THE COURT: For the defense?

15 OPENING STATEMENT ON BEHALF OF THE DEFENDANT

16 MS. MOYNE: May I proceed?

17 Chris Jordan is not guilty of fraud. He was not
18 guilty of fraud in 2008, 2009, and 2010 when he was a trader
19 and today, 12 years later, he is not guilty of fraud. The
20 prosecutors are asking you to travel back in time. They think
21 they can tell you what happened more than 12 years ago and
22 what was in Chris' head more than 12 years ago.

23 Think back to 2008, 2009, and 2010. The world was a
24 very different place. The Cubs had not won a World Series in
25 100 years. Barack Obama was the president. And most of us

1 were still using flip phones. When you travel back in time
2 and try to piece things together, you have to be careful.
3 Facts can be murky. It can be hard to know what really
4 happened and even harder to know what was in someone's mind.

5 It takes work. You have to be careful to make sure
6 you've gathered and considered all of the evidence. You have
7 to be careful not to apply today's standards and today's
8 knowledge. And if you don't do that work, you can make
9 mistakes, sometimes catastrophic mistakes. And that is what
10 happened here. The prosecutors, like the rest of us, are
11 human. They leapt to the wrong conclusion, and they have
12 charged an innocent man.

13 You heard from Mr. Sullivan about a four-step pattern
14 called spoofing that the prosecutors identified in Chris'
15 trading from a dozen years ago; and based on that four-step
16 pattern, the government has charged Chris with wire fraud
17 affecting a financial institution. But the four-step pattern
18 is not enough. It's not nearly enough to prove beyond a
19 reasonable doubt that Chris is guilty of wire fraud affecting
20 a financial institution.

21 To carry their burden of proof, the prosecutors must
22 prove to you what was in Chris Jordan's head 12 years ago,
23 what he was thinking. And they have to prove to you beyond a
24 reasonable doubt that when Chris showed up to his job every
25 day as a trader, he was actually a criminal. They cannot and

1 will not meet their burden of proof because it is simply not
2 true. Chris did not commit fraud, and Chris is not guilty.

3 Before I continue, let me take a moment to
4 reintroduce myself and Chris. I am Parvin Moyne, and together
5 with my colleagues, we have the privilege and honor to
6 represent Christopher Jordan.

7 With the Court's permission, I'll ask Chris to stand
8 up --

9 THE COURT: All right. Go ahead.

10 MS. MOYNE: -- and remove his mask and face the jury.
11 This is the person you will hear about during this trial.

12 Thank you, Chris.

13 For the next 20 minutes or so, I'm going to cover
14 four topics. First, I will tell you a little about Chris
15 because that's what this trial is about, what Chris did and
16 thought, not about what anyone else did or thought.

17 Second, I'll tell you about Chris' job as a trader
18 more than 12 years ago. As the evidence will show, Chris was
19 a trader during a period of enormous change in the business
20 when trading became increasingly dominated by computers.
21 You'll hear how Chris adapted to those changes by using a
22 trading strategy that resembles the four steps that
23 Mr. Sullivan described. In 2008 through 2010 when Chris was
24 trading at JPMorgan and then at Credit Suisse, he used that
25 four-step strategy. There will be no dispute about that. But

1 what is disputed and what the government cannot prove is that
2 Chris committed fraud when he traded that way.

3 The third part of my opening statement will be to go
4 over the fundamental problems the prosecutors have with their
5 case, the fundamental reasons why they cannot and will not
6 prove beyond a reasonable doubt that Chris committed fraud.
7 The evidence will show that Chris did not lie to other market
8 participants and that Chris did not act with a criminal intent
9 to defraud.

10 And fourth and finally, I'll talk about the evidence
11 you will hear in this trial that will show you that the
12 government is dead wrong. The evidence will show that when
13 Chris was at JPMorgan and Credit Suisse, he traded by the
14 rules as he understood them. He was open and transparent
15 about how he traded, and no one told him that the four-step
16 strategy was not allowed.

17 Because this is a criminal case, Chris does not have
18 to prove he is innocent. He sits before you an innocent man.
19 The government bears the burden of proof at all times, and the
20 government must prove all of the elements of wire fraud
21 affecting a financial institution beyond a reasonable doubt.
22 They cannot and will not meet their burden because when you
23 look at the evidence, you will find that Chris did not lie
24 about the orders he placed in the market, and he did not
25 intend to cheat or deceive other traders to take their money.

1 Chris is not guilty.

2 So starting with topic one, let's talk about Chris
3 Jordan. Who is he? Well, Chris is from New Jersey. In the
4 mid-1990s after college, Chris moved to New York where he got
5 a job as a trader on Wall Street. Chris traded precious
6 metals futures contracts including gold and silver. In 2008
7 and 2009, Chris worked for JPMorgan in New York City, and for
8 a short period of time in 2010, he worked for Credit Suisse,
9 also a bank in New York City.

10 His job was to make money for his employers by buying
11 and selling futures contracts which you will hear a lot about
12 in this trial. And that brings me to the second topic:
13 Trading precious metals futures contracts in 2008 through
14 2010.

15 And let me pause for a moment. You are going to hear
16 words and jargons that -- during this trial that might sound
17 complicated, but the key points are straightforward. When you
18 are a trader, you want to buy low and sell high. That might
19 sound easy, but the challenge is that everyone else is trying
20 to do exactly the same thing: Buy low, sell high. And so to
21 succeed, you need a strategy.

22 When you are competing, do you tell your competitors
23 your strategy? Of course not. Trading is competitive. You
24 hide your strategy. To win, you don't put your cards on the
25 table for everyone to see. It's a bit like bluffing in a card

1 game or faking a handoff in a football game. You keep your
2 cards close to the vest. That's not cheating. That's
3 competing.

4 And when Chris traded for JPMorgan and Credit Suisse,
5 it was a period of change. Historically, trading mostly
6 occurred in person, but then computers took over. And by
7 2008, traders like Chris sat in front of multiple computer
8 screens that showed them what was happening in financial
9 markets around the world. Traders like Chris entered their
10 orders to buy and sell from their computers. Trading became
11 electronic and anonymous. Traders could no longer see who
12 they were trading against.

13 And another change was that traders -- excuse me,
14 that computers, instead of human beings, actually did a lot of
15 the trading. Brilliant computer scientists developed
16 sophisticated computer programs known as algorithms, or algos.
17 And the algorithms processed an enormous amount of data at
18 lightning-fast speed, and they made decisions almost instantly
19 in tiny fractions of a second.

20 So by 2008, human traders like Chris were no longer
21 competing just against other computers -- other human traders,
22 they were competing against algorithms. And as you will hear,
23 algorithms had some major advantages. They could trade far
24 more quickly than any human being. And when a human trader
25 like Chris placed an order, an algorithm could instantly place

1 an order in front of it that was just slightly better, and it
2 made it very hard for human traders to get their job done.

3 And you're going to hear that to compete with the
4 algorithms, Chris used the four-step strategy you heard about
5 from the prosecutor. If Chris placed a large order on the
6 opposite side of a smaller order, the algorithm might jump
7 ahead of the large order and fill the small order. It was a
8 way to neutralize the algorithm's advantage of speed.

9 And guess what? The strategy tended to work because
10 as fast and smart as the algorithms were, they were
11 predictable. They just followed their programming. And in
12 2008 through 2010, the programming did not account for the
13 four-step strategy. And this is why the four-step strategy,
14 which later became known as spoofing, tended to work.

15 And this brings us to topic number three. When Chris
16 competed against the algorithms, was he knowingly and
17 intentionally committing fraud? That's ultimately what this
18 trial is about, and that is the question that you as jurors
19 will be called upon to answer at the end of this case. And
20 the evidence will show that the answer is clear: No, Chris
21 was not committing fraud when he entered his orders to buy and
22 sell futures contracts.

23 As the evidence will show, there are two fundamental
24 problems with the prosecution's theory. One, they won't be
25 able to prove that Chris lied to other market participants

1 when he submitted orders; and, two, they won't be able to
2 prove that Chris acted with the intent to cheat and defraud
3 anyone to take their money. So let's take each in turn.

4 Fundamental problem number one: Chris did not lie
5 when he placed orders on the CME's exchange. As I mentioned,
6 the CME, trading on the CME, was anonymous. Everyone could
7 see when an order was placed, but no one could see who placed
8 the order. The only information that was available was the
9 order itself. Traders did not speak to each other about their
10 orders. So just think about that for a moment. Chris never
11 told anyone anything, not one single word beyond the
12 information he provided in his orders, and every bit of
13 information he provided in his orders was true.

14 When Chris was trading at JPMorgan and Credit Suisse,
15 the CME had rules about what needed to be in an order. A
16 trader needed to provide four things: First, he had to
17 specify the product or commodity for the order such as a
18 futures contract for gold or for silver; second, whether the
19 trader was buying or selling; third, the price; and four, the
20 quantity, the number of contracts in the trader's order.
21 That's it: Commodity, buy or sell, price, and quantity. The
22 CME did not require traders to state their intention or
23 purpose, and there was no box for traders to fill in and say,
24 "This is the purpose of my order."

25 And once an order was on the market, what happened?

1 If it matched another order on the market, that trade was
2 executed. It traded. It was a done deal. There was no
3 negotiating. There was no backing out. The traders were
4 required to trade.

5 What about canceling an order? The CME's rules
6 allowed orders to be canceled at any time. There was no
7 minimum time period that an order had to be kept open. As
8 long as the trade had not happened, a trader could cancel the
9 order. And you'll hear that canceling orders was very, very
10 common back then. And you'll hear the algorithms routinely
11 canceled their orders. The evidence will show that Chris
12 canceled his orders far less frequently than other market
13 participants.

14 And so the question is, did Chris lie when he
15 submitted orders to buy and sell precious metals futures
16 contracts? And the evidence will show that he did not. For
17 every order Chris placed, he gave accurate information: The
18 commodity, buy or sell, price, and quantity. When one of
19 Chris' orders was accepted by another trader, he delivered
20 exactly what he promised every single time. He never backed
21 out, he never negotiated, and he never tried to substitute
22 something else.

23 Now, we expect the prosecutors are going to call at
24 least one witness from an algorithmic trading firm, Travis
25 Varner. And they're going to suggest that Chris somehow lied

1 to that witness or, more accurately, to the computer program.
2 But when you listen to the testimony, ask yourselves, what did
3 Chris tell the witness or his algorithm, which was really the
4 thing trading, that wasn't true? And the answer is going to
5 be, "Nothing." Chris never spoke to anyone at the algorithmic
6 trading firm, and he certainly never spoke to the algorithm.
7 And for every trade the algorithms did with Chris, they got
8 exactly what he promised in his order.

9 So this brings me to fundamental problem number two
10 with the government's case: The government cannot and will
11 not prove that Chris was acting with a criminal intent to
12 deceive or cheat other market participants to take their
13 money. Now, Mr. Sullivan told you that witnesses from the CME
14 and from JPMorgan and Credit Suisse will testify that they
15 believed that spoofing was always prohibited. They will
16 testify that markets depend on fairness and transparency and
17 they will tell you, in their opinions, spoofing violated the
18 rules. But there is important context that you should
19 consider as you hear their testimony.

20 Let's talk about the CME first. When Chris was
21 trading in 2008, 2009, and 2010, the CME did not have a rule
22 against spoofing. The CME had plenty of rules back then, but
23 there was no rule that said that traders could not place a bid
24 or offer with the intent to cancel before execution.

25 And let's talk about the banks and their compliance

1 policies. Neither JPMorgan nor Credit Suisse had a policy
2 against spoofing when Chris traded for them. You are going to
3 see hundreds of pages of compliance policies from this time
4 period, but just like the CME rules, there is not one word
5 about spoofing in any of the policies. And in this trial, you
6 will learn that none of the prosecutors' witnesses ever spoke
7 to Chris about spoofing, they never wrote to him about
8 spoofing, and they never advised him about spoofing.

9 And let's talk about behavior that was allowed.
10 You're going to hear that the CME allowed a lot of trading
11 that is not transparent. For example, you're going to hear
12 about iceberg orders. Iceberg orders allow traders to lead
13 others to believe that they want to buy just a small amount,
14 just the tip of the iceberg that is visible to other market
15 participants, but the rest of the order is hidden from the
16 market. It's lurking, invisible underneath, and market
17 participants cannot see it. Iceberg orders have the effect of
18 hiding supply and demand from other market participants, but
19 in 2008 through 2010, the CME allowed iceberg orders.

20 And you'll also hear about trading strategies used to
21 hide their orders -- excuse me. You'll hear about trading
22 strategies, the algorithms used to hide their orders so that
23 no one could see them. These strategies have names like "fill
24 or kill" or "immediate or cancel." And these kinds of orders
25 never showed up in the order book at all. Other traders could

1 never see them, but they were okay. The CME allowed them.

2 And so what will you make of all of this? The
3 evidence will show a gigantic hole in the middle of the
4 government's case because there will be no evidence that Chris
5 Jordan acted with the intent to defraud or to cheat other
6 market participants of their money.

7 And that brings us to the fourth and final topic. It
8 is not Chris' burden to prove his innocence, but the evidence
9 will show that the prosecutors are wrong. The evidence will
10 show that Chris traded according to the rules as he understood
11 them, and he did so openly because he had nothing to hide.
12 And I'll give you four examples.

13 Example one: You are going to see written
14 communications, emails and chat messages, back from 2008
15 through 2010 in which Chris openly discussed his use of the
16 four-step strategy the government now calls spoofing. In
17 these messages, Chris described his use of the strategy using
18 small iceberg orders and large visible orders, and he openly
19 wrote about the strategy to other traders at other Wall Street
20 firms and to the head of precious metals trading at JPMorgan,
21 his boss' boss.

22 So as you see these messages, ask yourselves, if
23 Chris understood and believed that what he was doing was
24 fraud, would he have written about it so openly even to his
25 boss' boss? And the answer is, of course not. And that's

1 especially true here because the compliance department was
2 monitoring the communications. And you're not going to hear
3 from a single witness that anyone from Compliance ever told
4 Chris to stop. So keep in mind Chris' openness as you hear
5 the evidence.

6 And that brings me to the second example. There were
7 times when Chris was at JPMorgan that he accidentally traded
8 with himself. He placed orders to buy and sell at the same
9 time, and those orders ended up trading with each other.
10 That's called wash trading. And the CME had rules about wash
11 trading, and JPMorgan had policies about wash trading. They
12 were clear, and Chris understood those rules. They were
13 clearly explained to him. And when he accidentally --
14 accidentally traded with himself, he told Compliance and
15 invited Compliance to review his trading.

16 So as you see that evidence, ask yourselves, if Chris
17 had been engaging in a fraud, would he have invited Compliance
18 to take a deeper look at his trading? Of course not.

19 Brings me to my third example of Chris' openness.
20 When Chris was asked about his trading and his use of the
21 spoofing strategy, he was truthful. And this is important
22 because Mr. Sullivan claimed otherwise in his opening
23 statement. Mr. Sullivan suggested that Chris lied about
24 spoofing in testimony that he gave to a government agency
25 called the CFTC. That is not accurate. So let me tell you

1 what the evidence will actually show.

2 You will hear that in 2010, Chris was interviewed by
3 attorneys from the CFTC as part of an investigation that was
4 unrelated to this case. No charges were ever brought against
5 anybody. And Chris met with the CFTC for two full days. And
6 there's a transcript of his testimony that goes on for
7 hundreds of pages. But the prosecutors will show you a
8 handful of lines and tell you that Chris lied. That is not
9 true. This is the government overreaching, using hindsight,
10 and putting a gloss on something without giving you all of the
11 information.

12 As you will see, the CFTC never asked Chris if he
13 spoofed. They never asked him the question of whether he
14 placed a bid or offer with the intent to cancel before
15 execution. That is the definition of spoofing. This isn't
16 just semantics. Those questions were not asked. And that is
17 important because Chris did not lie in response to the
18 questions the CFTC did ask.

19 Many years later, in 2018, the FBI talked to Chris,
20 and they did ask him questions about spoofing. And in
21 response, Chris told the truth. As you will hear, in November
22 2018 two agents from the FBI showed up at the home of Chris'
23 parents to interview Chris.

24 Now, Mr. Sullivan spoke about this interview with the
25 FBI in his opening statement, but he left a lot out. You'll

1 hear how the agents arrived at 6:00 o'clock in the morning
2 without any warning. It was pitch black. The agents woke
3 Chris up and asked him about his trading from years and years
4 ago. You'll hear how Chris spoke to the agents for hours and
5 how he described his spoofing strategy from almost a decade
6 earlier. That is consistent with someone who's innocent,
7 someone who has nothing to hide and did not think he was
8 engaging in some kind of fraud.

9 Mr. Sullivan described Chris' interview as a
10 confession. To be very clear, Chris Jordan sat with the
11 agents and answered questions from the agents for hours. He
12 was truthful. He told them he used the spoofing strategy.
13 But make no mistake, this was not a confession. That is not
14 true. That is a gross distortion of what happened.

15 Chris Jordan is charged with wire fraud affecting a
16 financial institution. He is not charged with a four-step
17 strategy. And during the FBI interview, Chris readily
18 admitted to the four-step strategy. However, as the evidence
19 will show, he did not confess to wire fraud affecting a
20 financial institution. There was no discussion at all during
21 the interview about wire fraud affecting a financial
22 institution. And as the evidence will show, Chris did not lie
23 to other market participants when he submitted orders to the
24 CME, and Chris did not act with criminal intent to defraud.

25 And this brings us to the fourth and final example of

1 how you'll know that the prosecutors got this wrong, how they
2 leapt to the wrong conclusions. Chris has no burden to prove
3 he is innocent, and he has no burden to do anything in this
4 case. We do not have to ask a single question or call any
5 witnesses, but we are going to ask questions, and we are going
6 to call witnesses. Why? Because we want you to have a more
7 complete picture.

8 One witness we will call is named Mark Ready. He is
9 a highly respected professor of finance who taught for years
10 at the University of Wisconsin. Here's why we're calling
11 Professor Ready. The government is going to show you a number
12 of trading sequences in which Chris used the four-step
13 strategy like what they showed you just now. And the
14 government will claim that this somehow shows that Chris'
15 large orders were deceptive and fake. But Professor Ready did
16 a detailed analysis of Chris' trading, and based on his
17 analysis, there is no question that Chris' large orders were
18 real.

19 In fact, you will hear that when Chris placed his
20 large orders, the one the government described as fake, he
21 placed the vast majority of those orders at the riskiest price
22 level. If any orders were going to be executed, Chris' would
23 have been first. They were on the front line, and they were
24 open for plenty of time for other market participants to
25 decide to trade. And when an algorithm traded against one of

1 Chris' orders, Chris followed through. He didn't try to
2 renegotiate, he didn't try to back out, and he didn't try to
3 sell or buy something different from what he had promised he
4 would sell or buy.

5 So, ladies and gentlemen, thank you for your service
6 and for your attention now and during this trial. This is an
7 important case for Chris Jordan who sits before you being
8 wrongly accused of having engaged in a fraud years ago. We
9 appreciate your patience and your willingness to listen to the
10 evidence.

11 At the end of this trial, the government will not
12 have shown you a single piece of evidence that establishes
13 that Chris committed wire fraud affecting a financial
14 institution. Chris did not lie to other traders when he
15 submitted his orders to the CME, and he did not act with the
16 criminal intent to defraud.

17 The government will ask you to convict Chris based on
18 the charts of his trading that show the four-step pattern and
19 the testimony of people who did not know him and never spoke
20 to him about spoofing. The government cannot and will not
21 meet its burden. And at the end of this trial, you will be
22 able to put an end to the terrible ordeal the government has
23 put Chris through. We will ask you to return the only verdict
24 that is consistent with the evidence: Chris Jordan is not
25 guilty. Thank you.

THE COURT: All right. The government may call its
first witness.

3 MS. JENNINGS: Your Honor, the government calls John
4 Scheerer.

5 Your Honor, do you want me to totally turn it back,
6 or can I tilt toward the witness?

7 THE COURT: That's fine.

8 Mr. Scheerer, come on up here, please. Before you
9 sit down, you can remove your mask for testimony and raise
10 your right hand.

11 (Witness sworn.)

12 THE WITNESS: I do.

13 THE COURT: All right. Have a seat.

14 All right. Ms. Jennings?

15 MS. JENNINGS: Thank you, your Honor.

16 || JOHN SCHEERER, GOVERNMENT'S WITNESS, SWORN

DIRECT EXAMINATION

18 || BY MS. JENNINGS:

19 Q. Good morning, Mr. Scheerer. How are you?

20 A. Good.

21 Q. Could you please introduce yourself to the jury and spell
22 your last name for the court reporter.

23 A. My name is John Scheerer, J-o-h-n, S-c-h-e-e-r-e-r.

24 || Q. And where do you live?

25 A. Frankfort, Illinois.

1 Q. Can you tell the jury a bit about your educational
2 background?

3 A. Sure. I went to San Diego State, an undergraduate degree
4 in economics with a minor in Japanese, and I got a master's in
5 finance from the University of Creighton with a specialty in
6 security analysis and portfolio optimization.

7 Q. Where do you work, Mr. Scheerer?

8 A. I work at CME Group.

9 Q. Where is the CME Group based?

10 A. In downtown Chicago.

11 Q. Great. How long have you worked there?

12 A. Since 2009, so 13 years.

13 Q. Great. And at a high level, can you explain to the jury
14 what is the CME Group? What does it do?

15 A. So CME Group is a holding company that has four what we
16 call DCMs, designated contract markets. Just think of them as
17 trading exchanges. So that is the Chicago Mercantile Exchange
18 which we'll refer to as CME; Chicago Board of Trade, which is
19 the CBOT; NYMEX, the New York Mercantile Exchange; and COMEX,
20 which is the Commodities Exchange.

21 Q. And all four of those exchange make up what is the CME
22 Group?

23 A. Correct.

24 Q. Okay. So today when we talk about those, I'm going to
25 just call them the CME or CME Group. Is that okay?

1 A. Yes.

2 Q. Great. Is the CME Group part of the federal government at
3 all?

4 A. No.

5 Q. And is it publicly traded?

6 A. Yes.

7 Q. Tell us a little bit about when it was founded, its
8 background.

9 A. So the CME, the original CME was the Butter and Egg Board
10 founded in 1898. So it started out as purely kind of
11 agricultural commodities, if you will, and then just over time
12 continued to grow into different asset classes.

13 Q. Okay. And you mentioned these four exchanges that make up
14 the CME Group. What is sort of the core business, or what do
15 these exchanges do?

16 A. So the core business of all the exchanges at CME Group is
17 trading. Now it's predominantly electronic trading, but it
18 started as trading on the floors, pit trading.

19 Q. And when you say "trading," is that buying and selling
20 things?

21 A. Yes.

22 Q. What kind of things are bought and sold on the CME markets
23 or the exchanges?

24 A. So CME, we have futures contracts and options on futures.

25 Q. Great. And this phrase, "futures" or "futures contracts,"

1 can you explain to the jury a little bit more about what that
2 involves?

3 A. Sure. So a futures contract is actually a contract
4 between a buyer and seller where you -- the buyer and seller
5 agree on a price and a number of contracts that you wish to
6 buy and sell that has a defined -- well, has a couple defined
7 things, a couple what we call contract specifications. So the
8 buyer and seller don't negotiate everything about the
9 contract. So the exchange determines these contract
10 specifications.

11 So easiest way is an example, right. So if you're
12 trading a gold futures contract so, you know, the contract
13 specs state that it's 100 ounces of gold. And there's also a
14 predetermined delivery date like when this contract expires.
15 So for example, there's a December contract for gold. So if I
16 bought that contract, I know I'm purchasing a contract that's
17 valued based on 100 ounces of gold. What I negotiate with the
18 other party is what price I'm willing to pay.

19 Q. And so in its simplest form, a futures contract is an
20 agreement between a buyer and seller on a price and a product
21 for a date in the future?

22 A. Correct.

23 Q. Okay. I want to go back and talk a little bit about the
24 types of products that are exchanged on the CME Group's
25 exchanges. Can you talk about what is a commodity and explain

1 that a bit, please?

2 A. Sure. So a commodity is a thing of value that has a
3 unique quality and is mass produced. So think of corn,
4 soybeans, and wheat, right. They're grown all over the world
5 but generally accepted as the same thing.

6 The same thing goes for metals: Gold, silver,
7 copper. It doesn't matter if it's mined in Russia or Alaska
8 or South America. Once it comes out of the ground, it's the
9 same thing. It's a commodity.

10 Q. And on CME exchanges, can you sell futures contracts for
11 commodities?

12 A. Yes.

13 Q. And does that include some of the metals that you just
14 discussed?

15 A. Yes. We have a wide range of metals products.

16 Q. What about gold and silver? Are they a particular type of
17 metal?

18 A. Yes. They're considered precious metal.

19 Q. Okay. And are all precious metals commodities?

20 A. Yes.

21 Q. I want to talk a little bit more about the futures
22 contracts that you mentioned earlier and dig in a little bit
23 on what that involves. What is in one gold futures contract?

24 A. You mean like the contract specs?

25 Q. Exactly.

1 A. Yes. So for one gold futures contract, it's 100 ounces.
2 It's based on 100 ounces of gold, and it's priced in dollars
3 and cents. So right now, roughly speaking, gold is trading
4 about \$1800 an ounce. So it's quoted in dollars and cents for
5 100 ounces of gold.

6 Q. Great. And can you kind of go through the same thing for
7 silver, please?

8 A. Sure. So silver is based on 5,000 ounces traded in
9 dollars and cents as well. The one thing I'll mention for
10 both of them is there is a -- you know, the minimum tick, the
11 way that it trades, the minimum tick increments. So like
12 gold, it's quoted in dollars and cents, so \$1800, but it ticks
13 in dime increments. So it trades at 1810 cents, 20 cents, 30
14 cents. In the case of silver, it trades in half pennies.

15 Q. Can you give us an example about how someone might use a
16 futures contract, this idea of, you know, a prearranged
17 contract for a date in the future?

18 A. Sure. So futures contracts are primarily designed for
19 managing risk and hedging. So a good example I think is
20 Southwest Airlines. So I can go out today and buy an airline
21 ticket for ten months into the future, and Southwest has a
22 price for that, everything.

23 So the largest cost of Southwest is fuel. So they
24 need -- in order for them to properly price an airline ticket
25 for ten months into the future, they need to know what they're

1 going to be paying for fuel ten months into the future, right.
2 And crude oil, it's a commodity. It can be very volatile,
3 right. It goes up and down every day. So they use a futures
4 contract with whatever expiration they need to, say, for this
5 example, ten months into the future, where they can go and buy
6 as much crude oil futures as they need to to essentially lock
7 in their price. So now they know exactly what that cost is
8 going to be. You know, their main business is flying. It's
9 not the movement of crude oil.

10 Another example would be a cereal maker, right. So
11 they need to purchase wheat. They know how much they need to
12 purchase, so same concept, right. They can go out and use our
13 wheat futures to lock in a price at some time in the future
14 for whatever amount of wheat they're going to need to use.

15 And on the flip side, so who's selling those wheat
16 futures to them? It would be probably a farmer, right? They
17 plant their crop. They know how many acres they have. They
18 know how much wheat that's going to yield. So again, they
19 want to be able to lock in what they're going to sell that
20 wheat for when it's time to -- for that crop to come due.

21 Q. And could -- this scenario you talked about, could that be
22 the same for a silver or gold supplier, for instance?

23 A. Yes.

24 Q. I want to shift and talk a little bit about how precious
25 metals futures are traded on CME exchanges. When the

1 exchanges first began, how was trading -- how did it take
2 place? How did it occur?

3 A. So it originally started on the trading floor. Sometimes
4 it's referred to as a pit, so a bunch of people standing
5 literally in a pit, in a circle, and they would buy and sell
6 face to face.

7 Q. And at some point, did the exchanges move from sort of
8 in-person, face-to-face to electronic?

9 A. Yes. Just with, you know, the advancement of technology,
10 we started trading electronically as well as on the floor.
11 And that was, for CME that was in the early '90s. We launched
12 something we called Globex, and that's just the name for our
13 electronic platform.

14 Q. So Globex, the electronic platform, launched in the 1990s,
15 first started electronic trading for CME?

16 A. Yes.

17 Q. Are precious metals futures contracts traded on Globex?

18 A. Yes.

19 Q. And does -- the majority of precious metals futures
20 contracts, were those traded on Globex?

21 A. Yes.

22 Q. When trading electronically, do traders have to be in the
23 same physical location?

24 A. No.

25 Q. And when trading electronically, do traders know who

1 they're exchanging with or who else is in the market?

2 A. They do not. All trading on Globex is anonymous.

3 Q. I want to talk about your role specifically at the CME.

4 What is your current title?

5 A. So my title is senior director of global operations.

6 Q. Okay. And do you work in the GCC, or the global command
7 center?

8 A. Yes.

9 Q. Please tell the jury a little about that.

10 A. So the global command center, we call it the GCC. The
11 main role is to handle all things for production trading. So
12 whether customers have questions about a certain product or
13 they don't know how it's priced or they have a question about
14 a trade that they did on the platform or maybe they lost
15 connectivity, they have a technology issue, whatever it is
16 around production trading, that's the first stop for our
17 customers, is to contact the GCC.

18 Q. And what are your specific day-to-day responsibilities at
19 the -- within the GCC?

20 A. Yes. So currently, I run a market structure team, so we
21 look at all of the functionality that we have on Globex:
22 Order types, risk controls, matching algorithms, how customers
23 interact with that functionality. We talk to customers about
24 maybe things they'd like to see on Globex, and we evaluate if
25 it would be, you know, best for the market as a whole, those

1 kind of things.

2 Q. And part of these sort of, you know, questions or
3 complaints that you receive from customers, do you ever field
4 complaints about perceived disruptive trade practices?

5 A. Yes. If -- so generally speaking, as I said, if customers
6 have any questions or complaints about something that they see
7 on Globex, their first call usually is the GCC. So, yes, if a
8 customer sees something on the screen that they don't
9 understand or they don't like, they'll call the GCC and
10 complain to us.

11 Q. And does that include complaints about perceived fake
12 orders?

13 A. Yes.

14 Q. What did you do before you started working at the CME?

15 A. So prior to the CME, I was a trader. I traded
16 electronically -- I was never on the floor -- for about ten
17 years.

18 Q. What types of products did you trade?

19 A. Well, I traded a lot of different products. Primarily
20 stock index futures but also commodities, agricultural and
21 metals, energies as well.

22 Q. And did you -- so commodities, metals, did that include
23 precious metals like gold and silver?

24 A. Yes.

25 Q. And specifically, did you trade futures contracts in those

1 metals?

2 A. Yes.

3 Q. I think you mentioned this, but just to be clear, did you
4 trade electronically, in the pit, or both?

5 A. Just electronically.

6 Q. So never traded in the pits?

7 A. Yes.

8 Q. I want to talk about the sort of mechanics of how trades
9 are made and placed in the CME, and I think -- first, let's
10 start with a couple of terms that we can define.

11 The first is the term bid, b-i-d. Can you tell the
12 jury about what that means?

13 A. Sure. So if you are trading and you want to buy
14 something, that's the phrase that we use. If you enter a buy
15 order, you're entering a bid.

16 Q. So if you place a bid in the market, it's an order to
17 buy --

18 A. Yes.

19 Q. -- a contract?

20 What about the term "offer"?

21 A. So offer is just the opposite. If you are looking to sell
22 something, you would -- a sell order is also, you would place
23 an offer on Globex.

24 Q. So placing an offer in the market is placing an order to
25 sell?

1 A. Yes.

2 Q. The last term is the term "lot," l-o-t. What does that
3 refer to?

4 A. That's just another word for contract. So if I want to
5 buy two contracts, I can also say I want to buy two lots.

6 Q. So shorthand for "contract"?

7 A. Yes.

8 Q. If I want to go on and place an order on Globex in a
9 futures market, what information do I need to provide in order
10 to place that order?

11 A. Well, there's a lot of, I'll call it, back-office
12 information, account numbers and everything else, but for the
13 screen essentially, the things that you need to put on your
14 order is buy or sell, the price, and the quantity, the number
15 of contracts that you want to...

16 Q. And is that the same information whether you want to buy
17 or whether you want to sell?

18 A. Yes.

19 Q. So let's use an example. Let's say I want to -- I place a
20 bid to buy five contracts, and you place an offer to sell five
21 contracts. Do we trade with each other?

22 A. It depends what -- if our prices are the same.

23 Q. Okay. So what if our prices don't match? What happens to
24 either of our respective orders?

25 A. So if you place a bid at a price of 10 and I place an

1 offer at a price of 12, you're not willing -- you know, our
2 prices are different, so they just, what we call, rest in the
3 book or on the trading engine. So those offers -- those
4 orders are there to trade, but there is no match.

5 Q. So essentially, they just stay in the market resting?

6 A. Yes.

7 Q. If there's another trader, let's say, out there in the
8 market who sees our orders, will they know who I am or who you
9 are or who placed those orders?

10 A. No. All they know is the price and the quantity.

11 Q. Would they know that we are different traders, that I
12 placed it and you are a separate trader who placed the other
13 order?

14 A. No.

15 Q. Why not?

16 A. Because all trading on Globex is anonymous. So when
17 you're looking at the trading screen, essentially all you see
18 is quantity, quantity and price.

19 Q. So keeping with our example, I place an order to buy. No
20 one has matched with it. It's sitting out there in the
21 market. Can I modify my order in any way?

22 A. As long as it hasn't been traded, you can modify the
23 order, meaning you can change the quantity or you can change
24 the price.

25 Q. So either I can reduce, add the amount, or I can change

1 the price level at which it's --

2 A. Yes.

3 Q. -- posted? Okay.

4 After an order is placed but it's still out there
5 resting in the market, can it be canceled?

6 A. Yes. As long as it hasn't been traded, it can be
7 canceled.

8 Q. What if I had an order out there for five and maybe three
9 of the contracts traded? What could I do? Could I cancel the
10 remaining two?

11 A. Yes. In that case, there are two contracts that are still
12 resting, so those are eligible to be canceled.

13 Q. All right. Let's go back to the original example where I
14 have an order to buy, you have an order to sell, and let's say
15 our prices do match. We both put them at 10. What happens?

16 A. So that's what we call -- well, there's a couple different
17 terms for it, but an execution or a match or a fill. But
18 either way, if you entered to buy five contracts at 10 and I
19 entered to sell five contracts at 10, then we would get, you
20 know, electronic confirmation from the exchange that we're
21 filled on our order. You bought five, I sold five.

22 Q. Okay. And once the trade is executed, do we learn of the
23 identities of our respective counterpart?

24 A. No.

25 Q. We talked about canceling earlier. Once we've traded, can

1 either of us cancel our order at that point in time?

2 A. No.

3 Q. How is it that Globex matches us up in terms of, I'm a
4 buyer who wants to buy at 10 and you're a seller who wants to
5 sell at 10. Can you talk a little bit about -- not too
6 technical but kind of at a high level how that process works?

7 A. So I think I mentioned, you know, it's a trading engine.
8 So essentially think of it, you know, as a computer. So as
9 everyone -- it doesn't matter where you are in the world. You
10 submit orders. And we'll just stick to gold futures. All of
11 those orders are held in one place on one trading engine where
12 that engine keeps track of all the quantities and the prices,
13 and that's what we call the order book.

14 So again, when a buyer and a seller agree on a price,
15 then the engine will automatically match those two orders and
16 send out confirmations to those parties.

17 Q. Where is that trading engine located?

18 A. In the Chicago suburbs.

19 Q. And was that true for the 2008 to 2010 time period as
20 well?

21 A. Yes.

22 Q. So, for example, if a trader in New York had placed an
23 order on the CME exchanges in 2008, '9, or '10, that order
24 would have had to travel from New York into Globex's trade
25 engine in Illinois?

1 A. Yes.

2 Q. And how would that have traveled from New York to
3 Illinois?

4 A. Electronically, telecommunication lines.

5 Q. I want to shift gears and talk about the types of orders
6 that a trader can place on Globex. Have you heard of the term
7 "limit order," l-i-m-i-t?

8 A. Yes.

9 Q. What is that?

10 A. So a limit order is an order where you specify the --
11 well, the quantity and your -- the reason they call it a limit
12 order is because of the price. So if I enter an order to buy
13 five contracts at 10, that's a limit order at 10, and it
14 simply means that my limit, my high limit that I'm willing to
15 pay is a price of 10.

16 Q. Okay. And when somebody places a limit order, in your
17 example, five contracts at 10, the market shows the full five
18 contracts at the price of 10?

19 A. Yes.

20 Q. What about the term "iceberg order"? Can you explain to
21 the jury what that is?

22 A. Yes. So an iceberg order is an execution type. And I'll
23 use a non-trading example, I think is the easiest way to
24 understand what it is. So let's say that you found 20 Beanie
25 Babies in your basement in a box, and you know they're

1 valuable, so you decide you're going to sell them on eBay. So
2 when you list them on eBay, I think there is a popular
3 strategy that says if I list all 20, then all the buyers know
4 there's a bunch there, right. So it might drive the price
5 down a little bit. But if I list one at a time then, you
6 know, I might get a better price for each sale. So what I do
7 is I list one. And as soon as it sells, I list another one.
8 And as soon as it sells, I list another one. And I do that 20
9 times.

10 So what an iceberg is, is that same thing. It's just
11 an automated order type that we offer to allow customers to do
12 that. So instead of sitting -- so let's switch over to
13 trading. Say you had 20 contracts to sell. So prior to the
14 technology that was around for us to automate this process, if
15 a trader wanted to do that, it was one at a time, right.
16 Enter one contract. It's filled. Enter another. It's
17 filled. Enter a third. It's filled.

18 An iceberg automates it for you so that you don't
19 have to sit at the screen. So you designate -- instead of
20 just one quantity, you designate two. You say, okay, I want
21 to sell 20 contracts in total, but I only want to display,
22 say, one at a time. And then the trading engine is smart
23 enough to say, okay, show one as soon as it's filled, enter
24 another one, enter another one. It's just an automated form
25 of that process.

1 Q. And I think you said it's sort of an execution process?

2 A. Yeah. An iceberg isn't a strategy per se. It's an
3 execution method.

4 Q. And is this an accepted execution method that's offered on
5 CME?

6 A. Yes.

7 Q. Okay. Let's talk -- those are a couple of orders. Are
8 there other types of orders besides sort of the limit,
9 standard order, and icebergs?

10 A. Yes.

11 Q. Okay. What about -- a couple more terms again. What
12 about the order book? I think you referenced that earlier.
13 What is the order book?

14 A. So the order book is what we refer to as, you know, back
15 to the trading engine. So we have what we call the central
16 limit order book. The short term is the CLOB. So again, all
17 orders for that product go to one trading engine. Buys and
18 sells, you know, the trading engine sorts them, highest to
19 lowest, keeps track of everything. That's the order book.

20 Q. And what is -- if I'm a trader, what can I see in terms of
21 the order book?

22 A. So with the order book, you can see price, and you can see
23 quantity.

24 Q. Let's talk about sort of the 2008 to 2010 time period.
25 How many different price levels were visible in the order book

1 for, you know, a trader if somebody was trading
2 electronically?

3 A. Right. So at that time, it would be what we call ten
4 deep. So, you know, if gold is trading at \$1800 right now, I
5 can enter a bid 50 ticks below that. That just rests in the
6 book, but you wouldn't see that on the screen. We would only
7 show the ten best bids and the ten best offers.

8 Q. So ten on either side?

9 A. Correct.

10 Q. Okay. What about the term the "bid-ask spread," b-i-d,
11 a-s-k, spread?

12 A. So the bid-ask spread refers to the best bid and the best
13 ask. So going back to our previous example of a bid at 10 and
14 an offer at 12, so I think there's two different ways
15 customers might use a bid-ask spread. So the first way is
16 someone might ask, "Hey, what's the bid-ask spread in gold?"
17 And the answer would be, "It's 10 bid at 12." Okay. Another
18 interpretation of what's the bid-ask spread, you could say 2,
19 right, 12 minus 10.

20 So it kind of depends on who's asking but generally,
21 it's referencing the top of the book, is what we call it, the
22 best bid and the best ask.

23 Q. And that difference, is that a reasonable proxy for a
24 market price?

25 A. Yes.

1 Q. Okay. A couple more terms here. What about the term
2 "manual trader"?

3 A. So at CME, we classify customers as either manual or not
4 manual. A manual trader is what it sounds like. It's
5 literally somebody who just sits and clicks, you know. So,
6 you know, the Globex is on a computer screen, right. You're
7 just looking at a screen, someone who is clicking a keyboard
8 or clicking a mouse to enter their orders manually.

9 Q. And is that what, for instance, you were doing when you
10 were trading before CME? You were a manual trader?

11 A. Yes.

12 Q. What's the -- so you said the manual and then non-manual
13 is the other one. What type of traders are involved in sort
14 of the non-manual side?

15 A. Right. So any trader who's using any sort of automation
16 to enter their orders meaning they might be using an
17 algorithm. So they have -- they use or they've designed, you
18 know, a computer algorithm where the computer makes the
19 decision based on some parameters whether to buy or sell. But
20 they aren't manually clicking the mouse to enter the order.
21 It's being entered for them by the computer.

22 Q. And so both of these types, both manual traders and
23 automated traders, are trading on CME exchanges?

24 A. Yes.

25 Q. Now, I want to focus a bit and talk about precious metals

1 that are at issue in this case, gold and silver. Are -- I
2 think you mentioned earlier, gold and silver futures contracts
3 are traded on CME's exchanges. Which specific exchange are
4 they traded on?

5 A. COMEX.

6 Q. COMEX. And when did COMEX become a part of the CME Group?

7 A. In 2008.

8 Q. And was that the same time that NYMEX --

9 A. Yes.

10 Q. -- also joined the CME Group?

11 A. Yes.

12 Q. Okay. Are you familiar through your work at the global
13 command center about the types of traders who are trading gold
14 and silver futures, futures contracts in CME or in the CME
15 exchanges?

16 A. Yes.

17 Q. Can you tell the jury a little about in general what types
18 of traders or people are trading?

19 A. I'd say a wide range. So you have banks, hedge funds.
20 You have commercial users so, you know, anybody that uses gold
21 in their product like computers or phones. You have what we
22 call prop firms, proprietary firms. So those are customers
23 who are just trading for their own account. You have what
24 we'll deem as speculators. And then there's also retail
25 traders.

1 Q. Okay. And the prices that are on the gold and silver
2 futures markets, do they have any impact on prices outside of
3 the futures market?

4 A. Yes.

5 Q. How is that? Explain that a bit to the jury.

6 A. Well, again, I'd say anybody who in their day-to-day
7 business uses gold, the price of gold impacts obviously their
8 business. I'd say the best example is if you think about,
9 like, exchange-traded funds, right, an ETF, it's like buying a
10 stock but they have ETFs based on gold or based on silver.

11 There's over \$100 billion in gold ETFs in this
12 country today, and they are priced 100 percent off the price
13 of gold. So as gold goes up or down, so do those. And those
14 are, you know, people who have their retirement or pension
15 funds invested just like any other investment.

16 Q. I want to circle back to something that we've talked about
17 several times which is this idea that trader -- trading is
18 anonymous on CME exchanges. Does the CME Group know the
19 identity of specific traders?

20 A. Yes.

21 Q. And how is that? Explain to the jury a bit about what
22 they see, what you see.

23 A. Sure. So while customers don't know anything else other
24 than their order, at CME we see every order that's entered,
25 right. We have what's called the audit trail that's managed

1 by our market regulation department. But every order,
2 modification, cancel, trade that's submitted by our customers
3 comes into the audit trail, and it's retained. So that has a
4 variety of information about that customer well beyond just
5 the price and quantity.

6 Q. Okay. I think you said it but just so I'm clear, so the
7 audit trail would include all orders, any modifications, any
8 cancellations, any trades?

9 A. Yes.

10 Q. And within that, it would be able to identify those, link
11 them to a specific trader?

12 A. Yes.

13 Q. Okay. How is it or what piece of information in that
14 audit trail allows CME to link a particular trade or, you
15 know, activity to a trader?

16 A. So there's a lot of what we call tags. So those are
17 things that you need to include on your order for it to be
18 accepted by us and a lot of what we'll call, like, accounting
19 things. So there has to be an account number, for example.
20 There has to be the -- you know, the clearing firm that you
21 have your account with. Think of it as like kind of your
22 brokerage firm needs to be on there.

23 We also have what's called a Tag 50 which is an
24 operator ID, and that tells us who submitted the order.

25 Q. Okay. And it's Tag 50, so Tag 5-0?

1 A. Correct.

2 Q. That's assigned to a particular -- a particular user?

3 A. Correct.

4 Q. Okay. Can you give me an example of just what a Tag 50
5 might look like?

6 A. A Tag 50 can -- it's up to the operator ID to make up
7 their own Tag 50. So it can be -- it can be a name. It could
8 be -- in my case, it could be JSCHEERER. It can also be three
9 letters, or it could be one number. It could just be two.
10 Whatever it is, so it could be, you know, numbers or letters.

11 Q. And traders can't see each other's Tag 50s, correct?

12 A. Correct.

13 Q. Okay. So this audit trail I think that you talked about
14 or the data in there, the trade data, does it log all activity
15 that happens on Globex?

16 A. Yes.

17 Q. And that would include the precious metals futures
18 contracts markets?

19 A. Yes.

20 Q. Okay. Within that data and knowing that that includes the
21 Tag 50 that's assigned to a particular trader or a person, is
22 it possible to track every single order that was placed,
23 modified, canceled, executed for, you know, a particular
24 trader throughout all of CME's exchanges?

25 A. Yes.

1 Q. I want to shift gears and talk about pricing of futures
2 contracts. What influences the prices of futures contracts at
3 sort of a general level?

4 A. So, yes, prices can move around a lot, and it can be a
5 variety of things. It could be news that's going on in the
6 world, changes to supply and demand. If we're talking about
7 wheat or corn, for example, let's say it's a really hot
8 summer, a bad growing environment, right. There's going to be
9 less corn and wheat that is there for supply.

10 So, you know, not always but most likely, that means
11 the price is going to go up because there's less supply. So
12 there's a variety of factors that can, you know, cause the
13 prices to move.

14 Q. Okay. And sort of thinking about the CME futures
15 contracts markets, can you discuss sort of the idea of supply
16 and demand within those particular markets sort of as they
17 move? I guess let me -- that was a bad question.

18 So in terms of supply/demand within a market, are
19 there sort of terms that you might use when someone is, you
20 know, buying interest or selling interest, that kind of thing?

21 A. Yes. Generally, if someone is on the buy side and wants
22 to buy, that would represent demand. And if someone is a
23 seller, that would represent supply.

24 Q. Great. And how can supply and demand affect the futures,
25 the price of the futures contract?

1 A. Well, I mean, just I think general economic theory will
2 tell you that if there's more demand than supply, more buyers
3 than sellers, most likely the price is going to go up and vice
4 versa. If there's more sellers than buyers, the price most
5 likely, not necessarily, but most likely is going to go down.

6 Q. So if someone places a really large order to buy in the
7 market, all things being equal, what would you expect to
8 happen to the price?

9 A. Again, most likely that price would go up.

10 Q. And it went up because more demand?

11 A. Correct.

12 Q. And that order would essentially indicate more buying
13 interest?

14 A. Correct.

15 Q. Okay. Let's flip it and just -- the other side. If
16 someone places a very large order to sell in the market, what
17 are you going to expect to happen to the price, all things
18 being equal?

19 A. Most likely that the price would go down as there's more
20 sellers than buyers.

21 Q. Okay. And that again is because there's more selling
22 interest than buying interest?

23 A. Yes.

24 Q. Just briefly, I want to touch on a last topic. Almost
25 done. Market regulation, are -- CME's exchanges, and

1 specifically COMEX, are they regulated by anyone?

2 A. Yes. The CFTC, Commodity Futures Trading Commission.

3 Q. And very high level, but what does the CFTC do?

4 A. So the CFTC is an independent government agency whose
5 responsibility is to regulate the U.S. futures and options
6 markets which CME Group, all of the exchanges fall under their
7 jurisdiction.

8 Q. And within the CME Group itself, does CME have rules that
9 govern trade practices or trading practices on its exchanges?

10 A. Yes.

11 Q. And have those been in place the entire time that you have
12 worked at CME?

13 A. Yes.

14 Q. So at least since 2008?

15 A. Yes.

16 Q. And is there a particular group within CME that's
17 responsible for writing and enforcing those rules?

18 A. Market regulation.

19 MS. JENNINGS: Market regulation. Okay.

20 One moment, your Honor?

21 THE COURT: All right.

22 MS. JENNINGS: No further questions. Thank you,
23 Mr. Scheerer.

24 THE COURT: All right. Let's take our midmorning
25 break before our cross-examination begins. So let's take 15

1 minutes, ladies and gentlemen.

2 All rise.

3 (Recess from 10:29 a.m. to 10:48 a.m.)

4 (Proceedings heard in open court. Jury out.)

5 MR. SULLIVAN: Your Honor, at the end of the opening
6 statement by the defense, Ms. Moyne said, "At the end of this
7 trial, you will be able to put an end to the terrible ordeal
8 that the government has put Chris through." We obviously
9 didn't object at the time, but there were pretrial motions in
10 limine about evidence and argument of the effect of the
11 prosecution on the defendant's lives.

12 And the defendant -- this is ECF No. 353 at Page 3.
13 They said that they don't intend to offer what they call
14 improper argument concerning the impact of the prosecution on
15 the defendant's lives. And so we'd just note that we've been
16 operating under this assumption and agreement, but if that has
17 changed, I think we -- the government would like to know.

18 THE COURT: For the defense?

19 We'll take that up at the break.

20 MR. SULLIVAN: Okay.

21 THE COURT: All rise.

22 (Proceedings heard in open court. Jury in.)

23 THE COURT: All right. That was very close, very
24 close.

25 We are ready to resume the testimony. We are going

1 to start with the cross-examination now of Mr. Scheerer.

2 Mr. Scheerer, you understand you're still under an
3 oath to tell the truth?

4 THE WITNESS: Yes.

5 THE COURT: All right. For the defense?

6 MS. CHURCH: Yes, your Honor.

7 CROSS-EXAMINATION

8 BY MS. CHURCH:

9 Q. Good morning, Mr. Scheerer.

10 A. Good morning.

11 Q. It's still morning. My name is Megan Church. You and I
12 have never spoken before, right?

13 A. Yes. Correct.

14 Q. Even better. Louder.

15 And am I correct that you have never met Chris
16 Jordan?

17 A. Yes.

18 Q. The two of you have never spoken?

19 A. Never spoken.

20 Q. So the very first time you're even seeing him is in this
21 courtroom, correct?

22 A. Yes.

23 Q. Now, on direct examination with Ms. Jennings, you talked a
24 little bit about your career as a trader, right? And that was
25 before you joined the CME?

1 A. Yes.

2 Q. Let's talk about that for just a few moments. Okay. It
3 was early in your career that you were a trader, right?

4 A. Okay.

5 Q. Well --

6 A. Yeah, I guess so. I did a little bit before I started
7 trading but yeah, so...

8 Q. Okay. Well, certainly you were a trader. You traded for
9 about ten years?

10 A. Yes.

11 Q. And you've now been with the CME for 13 years, I think you
12 said on direct examination?

13 A. 13, yes.

14 Q. So you've had a lengthy career in the trading industry,
15 right?

16 A. Yes.

17 Q. Okay. And when you traded, it was in the late '90s to
18 about 2009?

19 A. Yes.

20 Q. And that's when you joined the CME, correct?

21 A. Correct.

22 Q. You traded electronically?

23 A. Yes.

24 Q. And you traded precious metals futures as you testified
25 to, right?

1 A. Yes.

2 Q. And you traded on the CME, right?

3 A. Yes.

4 Q. You were a manual trader, right?

5 A. Yes.

6 Q. A manual trader is a person, right?

7 A. Yes.

8 Q. An actual living, breathing human being, right?

9 A. Yes.

10 Q. Okay. And as you testified on direct examination, a
11 manual trader uses a computer, you know, with a keyboard and a
12 mouse to enter orders on the exchange, right?

13 A. Yes.

14 Q. Sometimes human traders have multiple screens in front of
15 them as they're trading; is that right?

16 A. Yes.

17 Q. And so for about ten years when you were trading, were you
18 sitting in front of a computer entering orders with your mouse
19 and a keyboard?

20 A. For most of it, yes.

21 Q. You would agree that trading is competitive, right?

22 A. Yes.

23 Q. As a trader, you had competition in the market, right?

24 A. Against other traders, you mean?

25 Q. Yes.

1 A. Yes.

2 Q. Okay. So it was competitive even, you know, back in 2009
3 up through -- in the '90s up through 2009, right?

4 A. Yes.

5 Q. Okay. And it still is competitive, right?

6 A. Yes.

7 Q. The goal was to buy low and sell high?

8 A. It -- well, I'll say it depends on who the -- what your
9 purpose is. For some customers, definitely the goal was to
10 buy low and sell high. For other customers who might be
11 hedging, their goal might just be, "I need to buy X amount of
12 contracts at this price."

13 Q. Okay. The goal is to make money, right?

14 A. Generally speaking, yes, but again, it depends on the type
15 of customer. So for some customers --

16 Q. If I could stop you there.

17 A. Okay.

18 Q. So, you know, if -- the overall goal in trading in
19 business is to generally make money. You would agree?

20 A. And not lose money.

21 Q. Yes.

22 A. Okay.

23 Q. Exactly. So when you're trading, you don't want to buy
24 high and sell low generally?

25 A. Correct.

1 Q. Okay. And when you were trading, the traders you were
2 trading against had generally the same purpose of buying low
3 and selling high or avoiding losing money, right?

4 A. I'll stick with, "avoiding losing money."

5 Q. Okay. And so sometimes you made money, right, from your
6 trades?

7 A. Yes.

8 Q. Sometimes you lost money from your trades?

9 A. Yes.

10 Q. And when you traded, you traded against other human
11 traders, right?

12 A. Well, again, I don't know exactly who I traded against.

13 Q. But you suspected you were trading against other human
14 traders at the time?

15 A. Sure. At that time, there were both manual traders and
16 automated traders.

17 Q. And so you also traded against computer programs, right?

18 MS. JENNINGS: Objection to scope.

19 THE COURT: Yes. Let's take a sidebar.

20 (Proceedings heard at sidebar:)

21 THE COURT: All right. How does this tie to his
22 direct testimony?

23 MS. CHURCH: Your Honor -- I'm sorry. I'm getting
24 accustomed to hearing myself in my headphones as I speak.

25 It goes to his testimony about the markets, his role

1 as a trader. It goes to his testimony about who was in the
2 marketplace, being both human traders or manual traders and
3 algorithms. That is what he testified to on direct
4 examination.

5 THE COURT: Yeah, I don't -- we don't need, on the
6 one hand, a repeat of direct, and then on the other hand,
7 there will be other witnesses who are going to put at issue
8 the more detailed arguments on what constitutes spoofing and
9 so on. This is not that witness. So --

10 MS. CHURCH: Your Honor -- I'm sorry.

11 THE COURT: Go ahead.

12 MS. CHURCH: As I said, I'm not getting into spoofing
13 with him at all. I'm just going through what trading is in
14 the marketplace and who the traders were in the marketplace.
15 I'm not going to get into spoofing at all with this witness.

16 MS. JENNINGS: Your Honor, if it could be tied to his
17 role at the GCC and CME, that is the only frame within which
18 he testified to be who was in the market. The idea that we're
19 tethering this now to his experience as a trader which on
20 direct, I believe I asked no more than, you know, two or three
21 questions about for purposes of background. That's -- that's
22 the issue.

23 If she wants to ask him the context of his role at
24 the GCC and who he understands to be trading, that's fine, but
25 it's different than his role as another trader in the market.

1 THE COURT: Okay. Yeah, you have covered at this
2 point, Ms. Church, sufficiently his very brief background
3 testimony, and so you ought to accelerate now to his role at
4 the CME.

5 MS. CHURCH: Happy to do so, your Honor. Thank you.

6 (Proceedings heard in open court:)

7 THE COURT: All right. The objection is sustained.

8 You can proceed as we discussed, though.

9 MS. CHURCH: Yes, your Honor.

10 BY MS. CHURCH:

11 Q. Mr. Scheerer, you testified extensively about your role in
12 the global command center at CME, right?

13 A. Yes.

14 Q. And you even testified about, you know, the CME was
15 originally the Egg and Butter Board back in 1898. Was that
16 it?

17 A. Yes.

18 Q. You weren't there in 1898, right?

19 A. I was not.

20 Q. Okay. So fast forwarding to your time at the CME and in
21 the global command center, you have an understanding that
22 traders in the CME are both human traders, right?

23 A. Yes.

24 Q. And automated traders, right?

25 A. Yes.

1 Q. Or algorithmic traders, right?

2 A. Yes.

3 Q. And so those are the traders who use algorithms to buy and
4 sell their orders; is that right?

5 A. Yes.

6 Q. Algorithms and algos, same thing?

7 A. Yes.

8 Q. Okay. And what you testified to on direct examination is
9 that the CME identifies traders as being either, you know, the
10 manual human traders or automated traders, right?

11 A. Well, technically, the person who's submitting the order
12 has to designate whether they are manual or automated.

13 Q. Okay. So if the person is entering an order, they're not
14 going to say they're an automated trader, right?

15 A. Correct. They shouldn't.

16 Q. They shouldn't. And an algorithm is not going to say that
17 it is a living, breathing human being, right?

18 A. They shouldn't.

19 Q. Okay. And you mentioned on direct examination that the
20 CME has a way to identify who is trading on the exchange,
21 correct?

22 A. Yeah. The operator ID, yes.

23 Q. Or the Tag 50, right?

24 A. Tag 50, yes.

25 Q. Okay. So we've been talking, Mr. Scheerer, about who

1 trades on the CME just like you did when you were a trader and
2 what you see now that you're at the CME, right? So let's talk
3 for a few moments about the CME's exchanges from the
4 perspective of the trader. Okay?

5 A. Okay.

6 Q. So as you mentioned on direct examination, the CME's
7 exchanges are anonymous, right?

8 A. Correct.

9 Q. When you're trading, you can look at the market on a CME
10 exchange and see orders, right?

11 A. You can see bids and, yeah, prices and quantities, yes.

12 Q. Those are orders, aren't they?

13 A. Yes.

14 Q. Okay. And those orders, as you were just testifying to,
15 would show what the commodity was?

16 A. Correct.

17 Q. The price?

18 A. Yes.

19 Q. The quantity?

20 A. Yes.

21 Q. And whether that order is buying or selling, right? Bid
22 or offer, right?

23 A. Yes.

24 Q. But you couldn't see who's behind those orders, right?

25 A. Correct.

1 Q. You couldn't tell as you're looking at the exchange if the
2 orders were entered by a human or an algorithm, right?

3 A. Correct.

4 Q. And that was true in 2008?

5 A. Yes.

6 Q. 2009?

7 A. Yes.

8 Q. 2010?

9 A. Yes.

10 Q. And that was even after you had stopped trading at the
11 CME, right?

12 A. Say that again.

13 Q. That was -- 2010 was after you had stopped trading?

14 A. Correct.

15 Q. Okay. So traders don't know who they're trading against
16 on the CME, right?

17 A. Correct.

18 Q. Traders don't know if it's a human or an algorithm, right?

19 A. Correct.

20 Q. They might be able to guess by how fast an order is
21 executed, right?

22 MS. JENNINGS: Objection. Lack of foundation.

23 THE COURT: You can answer if you think you know.

24 BY THE WITNESS:

25 A. I mean, it depends -- it's all dependent on who's looking

1 at the screen.

2 BY MS. CHURCH:

3 Q. Okay. So you can have a guess one way, but you won't
4 know, is the bottom line?

5 A. Yes. You might guess wrong, but anyone can guess, right,
6 yeah.

7 Q. Absolutely. And so let's say a trader is looking at the
8 exchange and they see a particular order. If the trader wants
9 to find out more about that particular order or why the trader
10 placed it or kind of what's going on, that trader can't pick
11 up the phone and call who's actually put that order onto the
12 CME, right?

13 A. Correct.

14 Q. And that's because the trader has no idea who placed the
15 order?

16 A. Correct.

17 Q. So buying and selling commodity future contract -- futures
18 contracts on the CME is not like buying a house, right?

19 A. No.

20 Q. You don't talk to the other side --

21 A. Correct.

22 Q. -- correct?

23 There's no haggling or bargaining, right?

24 A. Correct.

25 Q. It's anonymous, correct?

1 A. Yes.

2 Q. And so basically, orders are on the exchange, and if
3 someone wants to trade, it's take it or leave it, right?

4 A. Yes.

5 Q. Okay. So you spoke with Ms. Jennings for a little while
6 about some of the terminology for futures trading on the CME.
7 A lot of it moves -- moved pretty quickly, so I want to cover
8 some of the same concepts because we're going to talk about
9 them a lot during this trial. Okay?

10 A. Okay.

11 Q. So when we're talking about a futures contract, we're
12 talking about the contract to buy or sell a commodity at a
13 fixed price but with the idea that the commodity itself won't
14 be delivered until some point off in the future, right?

15 A. Yeah, on the expiration date of that, whatever the
16 contract month is, yes.

17 Q. But that's a correct definition for a futures contract --

18 A. Yes.

19 Q. -- right?

20 A. Yes.

21 Q. Okay. And with futures trading, it's the buying and
22 selling of the contract, right?

23 A. Yes.

24 Q. And when you want to buy a futures contract, you place a
25 bid, right?

1 A. Correct.

2 Q. In trading terminology, a bid is simply an offer to buy a
3 specific quantity of a commodity at a stated price, right?

4 A. Can you say that again? You threw "offer" in there.

5 Q. Am I going too fast --

6 A. You threw "offer" in the definition of a bid.

7 Q. Well, you know, that's --

8 A. I just --

9 Q. Are you familiar with the CME glossary?

10 A. I know it exists. I don't -- it's not something that I
11 usually read.

12 Q. Fair enough. But in trading terminology, is a -- a bid is
13 an offer to buy, so you're requesting to buy a specific
14 quantity of a commodity at a stated price?

15 A. Yes.

16 Q. Okay. And the bid is the price that the trader or market
17 participant is willing to pay?

18 A. Say that again. I'm sorry.

19 Q. The bid is the price that the market participant is
20 willing to pay for that contract, right?

21 A. Well, a bid composes price and quantity. So I will say
22 within the bid, there is a price that you have to designate,
23 correct.

24 Q. Okay. And that's the amount you're willing to pay?

25 A. Correct. The bid price.

1 Q. Yes. And when you want to sell a futures contract, you
2 place an offer, right?

3 A. Yes.

4 Q. Okay. An offer is the opposite of a bid?

5 A. Yes.

6 Q. The price level of an offer is sometimes called the ask?

7 A. Yes.

8 Q. Okay. And the CME's visible order book, you talked about
9 the CME's order book on direct, right? That shows bids and
10 offers the traders can actually see, right?

11 A. Yes.

12 Q. And the visible order book gives a representation of the
13 supply and demand that's in that market, in the market at that
14 particular point in time, right?

15 A. Yeah. It displays the quantities that are on the bid and
16 offer side.

17 Q. It shows the visible bids and offers?

18 A. Yes, visible bids.

19 Q. Okay. And the visible bids and offers are called limit
20 orders, right?

21 A. Yes.

22 Q. Okay. And limit orders are there just resting in the
23 order book, and they can be seen by other traders, right?

24 A. Yes, but there are also other order types other than limit
25 orders that will show.

1 Q. We'll get there.

2 A. Okay.

3 Q. We'll get there.

4 A. All right.

5 Q. And now another concept is, you know, the idea of long and
6 short. You're familiar with those terms?

7 A. Yes.

8 Q. Okay. So now if I buy one gold futures contract on the
9 CME, is it common to say that I'm long one futures contract?

10 A. Yes.

11 Q. So in futures trading terminology, "long" is essentially
12 synonymous with having bought a contract, right?

13 A. Correct.

14 Q. And if I sell a futures contract, am I short that
15 contract?

16 A. Yes.

17 Q. In trading terminology, is "short" synonymous with having
18 sold a contract?

19 A. It -- well, a small point of clarity. So long and short,
20 so "long" means you have a position. You bought it, and you
21 still have it. If you sell it short, it's not to cover from
22 buying before and get flat, right. It's, I have a short
23 position on. So it's just slightly different.

24 If you sell, it doesn't mean you're short --

25 Q. Correct.

1 A. -- if you bought it, right. It just means you're
2 initiating a position and that the first thing you did was
3 sell it, yes.

4 Q. And so "short" is in the context of selling, correct?

5 A. Yes.

6 Q. Okay. That's high level right here.

7 A. Okay.

8 Q. So when we talk about what a futures contract is and what
9 it's not, we focused on what it is which is a contract, but
10 what it isn't is the actual commodity, right -- that was a
11 terrible question. Let me start that over.

12 A. All right.

13 Q. So when we're talking about what a futures contract is and
14 isn't, we're going to be -- I'm going to do that all over
15 again.

16 Let's talk about futures contracts for gold and
17 silver. We've been talking about what it is and what it isn't
18 over there, but we're going to talk about gold and silver
19 futures contracts, okay, because that's what we're going to
20 talk a lot about during this trial.

21 So when you buy a gold futures contract on the CME,
22 you are buying the contract?

23 A. Correct.

24 Q. And you're not buying the actual physical gold, right?

25 A. Correct.

1 Q. You can't buy actual physical gold for immediate delivery
2 on the CME, correct?

3 A. Correct.

4 Q. So if you wanted to buy actual physical gold for immediate
5 delivery, you'd go to a different kind of market called a spot
6 market, right?

7 A. Correct.

8 Q. Like on the spot, right?

9 A. Right.

10 Q. And spot trading is sometimes called over-the-counter, or
11 OTC, trading?

12 A. Correct.

13 Q. So it's kind of like, "I'm going to sell you this gold bar
14 and hand it to you over the counter right now," right?

15 A. Correct.

16 Q. And that's OTC trading or spot trading, right?

17 A. Yes.

18 Q. Okay. That's different than what happens on the CME,
19 right?

20 A. Yes.

21 Q. Okay. And on the CME, you can only buy or sell the
22 contract, not the actual physical gold?

23 A. Yes.

24 Q. You mentioned this on direct examination, but this is
25 something that we're going to talk about during the trial,

1 which are ounces to a contract when we're talking precious
2 metals futures. Okay.

3 So when we're talking about a gold futures contract,
4 each gold futures contract references 100 ounces of gold,
5 right?

6 A. Correct.

7 Q. And then when we're talking about silver futures
8 contracts, each contract, each one of those contracts
9 references 5,000 ounces of gold -- of silver. Boy, did I goof
10 that up.

11 A. Right.

12 Q. 5,000 ounces of silver, right?

13 A. Correct.

14 Q. Now, during your direct examination, you talked a bit
15 about pricing in the futures markets, right?

16 A. Yes.

17 Q. And you talked about the quantities of ounces per
18 contract, right?

19 A. Yes.

20 Q. So I want to put that together for a moment and talk about
21 the concept of notional value. Okay. You're familiar with
22 that term, right?

23 A. Yes.

24 Q. So broadly speaking, the notional value of a futures
25 contract is the value of the assets underlying the contract,

1 right?

2 A. Yeah, that it's based on, correct, yes.

3 Q. Okay. So each gold futures contract has a notional value?

4 A. Correct.

5 Q. And the notional value is the value of the gold, the asset
6 that's underlying the futures contract itself, right?

7 A. Correct.

8 Q. And I think that a demonstrative might assist in
9 understanding this concept.

10 MS. CHURCH: So, your Honor, I've shown the
11 demonstrative to the government, and I would ask that
12 Mr. White, if he would be able to pull up what we've marked
13 for identification as Defense Exhibit 1020.

14 THE COURT: All right.

15 MS. JENNINGS: Your Honor, before we do this, can I
16 object to scope?

17 THE COURT: Yes. Let's have a sidebar.

18 (Proceedings heard at sidebar:)

19 THE COURT: Yes, I figured that was coming. But the
20 idea will be, you get to do this notional value either through
21 Mr. Scheerer or some other witness. So if you want to do it
22 through Mr. Scheerer, that's fine.

23 MS. CHURCH: Yes, your Honor.

24 THE COURT: Okay. I think I switched to the right
25 PC, so you can proceed.

1 MS. CHURCH: Yes, your Honor.

2 (Proceedings heard in open court:)

3 THE COURT: All right. The objection is overruled.

4 Let's see. I think you've got it over to the right

5 PC. Okay. And I think the jury has it too now. Okay.

6 Yes, ladies and gentlemen, if ever a screen is not
7 showing the exhibit when it looks like we all are staring at
8 the exhibit, then let us -- just wave your hand and I'll make
9 sure your monitors are on.

10 There are going to be times when only the witness and
11 the lawyers can see it because I need to make a decision on
12 it, but if we start examining the witness on it and it's not
13 up there, just let me know.

14 All right. Ms. Church?

15 MS. CHURCH: Yes, your Honor.

16 BY MS. CHURCH:

17 Q. Mr. Scheerer, you have this in front of you as well,
18 right?

19 A. Yes.

20 Q. Okay. And you see that it is a simple chart, right?

21 A. Yes.

22 Q. Okay. And we're calling this "Notional value, example 1."
23 Do you see that on there?

24 A. Yes.

25 Q. And so going through each of the columns, there's a column

1 for number of gold contracts. Do you see that?

2 A. Yes.

3 Q. Number of ounces per contract, right?

4 A. Yes.

5 Q. Price per ounce, right?

6 A. Yes.

7 Q. Okay. And then notional value of futures contract, right?

8 A. Yes.

9 Q. So I'm going to ask Mr. White to fill this in as we go.

10 And we're not writing it because it would be a disaster for
11 everyone to see. Okay.

12 So let's imagine a hypothetical futures contract for
13 gold; one, one gold futures contract with a price of \$1200 per
14 ounce. Okay?

15 A. Okay.

16 Q. So in the left column, because we're talking about one
17 gold futures contract, we'll put the number 1. Okay?

18 A. Okay.

19 Q. And you see that?

20 A. Yes.

21 Q. And the next column for number of ounces per contract,
22 we'll put 100, right?

23 A. Yes.

24 Q. Because there are 100 ounces of gold per contract, right?

25 A. Yes.

1 Q. Okay. And then in our hypothetical, we have said that the
2 price per ounce of gold is \$1200, right?

3 A. Okay.

4 Q. And so we'll put \$1200 there. Thank you, Mr. White.

5 And then to get the notional value of that one gold
6 futures contract, we multiply the one contract times 100
7 ounces times \$1200, right?

8 A. Correct.

9 Q. So that would make the notional value of this gold futures
10 contract \$1200, right -- I'm sorry. I just did that wrong.
11 \$120,000, right?

12 A. Correct.

13 Q. So the notional value is, again, the value of the gold
14 underlying the contract?

15 A. Correct.

16 Q. Right. So if I bought 100 ounces of gold on the spot
17 market, I would have to pay \$120,000 essentially to get the
18 physical gold, right?

19 A. I believe so, yeah, if it's non-margined and everything
20 else, yes.

21 Q. There are other factors that go into price, right,
22 sometimes?

23 A. Yes.

24 Q. Okay. But I'm not actually buying the physical -- I'm not
25 buying the physical gold. I'm buying the futures contract,

1 right?

2 A. Correct.

3 Q. Okay. So if I'm buying the gold futures contract, I don't
4 pay \$120,000, right?

5 A. Correct.

6 Q. I don't pay even close to \$120,000, correct?

7 A. Correct.

8 Q. I have to pay a much smaller amount called margin, right?

9 A. Correct.

10 Q. And that was something you just started to mention, right?

11 A. Yes.

12 Q. Market -- okay. Let's do another hypothetical. And let's
13 say I bought this time one gold futures contract for \$1200.
14 So again, I'm long this one gold futures contract.

15 A. Yes.

16 Q. And I hold on to the contract for a few days, and I'm
17 lucky enough that the market moves in my favor and the price
18 per ounce goes up to \$1201. So it went up in price by \$1.

19 A. Okay.

20 Q. So I decide I want to sell the contract. Let's now
21 calculate the notional value of this contract now that the
22 price per ounce has gone up a dollar. Okay?

23 A. Okay.

24 MS. CHURCH: And let's use another demonstrative.

25 So, Mr. White, will you please bring up what we'll mark for

1 identification as Defense Exhibit 1021. And we're going to do
2 the same thing here, but we'll do the side-by-side, although
3 it just got very small on the screen.

4 BY MS. CHURCH:

5 Q. Can you still see it okay?

6 A. Yes.

7 Q. So here it is just like before, the same chart, right?
8 And what we're going to do is for numbers for contracts, for
9 one gold contract, we're going to put the 1, right?

10 A. Okay.

11 Q. And then in the next column where, again, it's number of
12 ounces per contract, that hasn't changed, right?

13 A. Correct.

14 Q. It's still 100 ounces.

15 A. Yes.

16 Q. So we'll put that there. Now, the price per ounce has
17 changed. It's gone up by the dollar, so it's \$1201, right?

18 A. Correct.

19 Q. So we'll put that in the next column, hopefully. There we
20 go. And this shows the price per ounce has gone up the \$1,
21 right?

22 A. Yes.

23 Q. And then we'll do the math here again. So it's one
24 contract times 100 ounces times \$1201, that gives us a
25 notional value of a contract that's \$120,100, right?

1 A. Correct.

2 Q. It's \$100 higher than when I bought it a few days ago,
3 right?

4 A. Correct.

5 Q. Okay. So let's say I sell this contract when the notional
6 value has gone up. I've made a profit, right? But when I
7 sell the contract, no one pays me \$120,100, right?

8 A. Correct.

9 Q. The buyer of my contract doesn't pay that full amount,
10 right?

11 A. Correct.

12 Q. They again pay the smaller amount called margin?

13 A. Correct.

14 Q. Right?

15 A. Correct.

16 Q. Okay. And so from looking at these two charts, we can
17 figure out the profit that I made from my successful futures
18 trade which is \$100?

19 A. Correct.

20 Q. That's my profit?

21 A. Yes.

22 Q. And that \$100 profit is much smaller than the notional
23 value of \$120,100, right?

24 A. Correct.

25 Q. Okay. And it's common for a trader's profit or loss on

1 any particular futures position to be much smaller than the
2 notional value, right?

3 A. Correct.

4 Q. Okay. So we've been using, as you can see here, the
5 example of one futures contract, right?

6 A. Yes.

7 Q. But it's common for traders in the market to place orders
8 for much larger quantities of contracts, right?

9 A. Yes.

10 Q. So let's just go through a hypo with a larger number of
11 contracts. And to keep it easy this time, we're going to fill
12 in the bottom row, but we're going to say we bought 100 gold
13 contracts this time. Okay?

14 A. Okay.

15 Q. And like in the first hypothetical, the price is \$1200.
16 Okay? So let's calculate the notional value here.

17 MS. CHURCH: And, Mr. White, if you can fill in as we
18 go.

19 BY MS. CHURCH:

20 Q. So first, we enter 100 contracts in the column underneath
21 "Number of contracts," right?

22 A. Yes.

23 Q. And then we still put in 100 for number of ounces, right?

24 A. Yes.

25 Q. That hasn't changed?

1 A. Correct.

2 Q. And then the price in this hypo is still \$1200, right?

3 A. Yes.

4 Q. So we can put that in. And then we do the same
5 calculation, right?

6 A. Yes.

7 Q. So it's 100 contracts times 100 ounces times \$1200 per
8 ounce, correct?

9 A. Correct.

10 Q. And that gets a notional value for us of \$12 million,
11 right?

12 A. Correct.

13 Q. And that again is bigger than \$120,000, right, but
14 again -- yes?

15 A. Yes.

16 Q. Sorry. But again, when I buy those 100 contracts, I don't
17 actually pay \$12 million?

18 A. Correct.

19 Q. I pay the margin?

20 A. Yes.

21 Q. The smaller amount?

22 A. Yes.

23 Q. So again, I am long 100 gold futures contracts. And I
24 decide when the market has again moved in my favor a few days
25 later that I may want to sell. So I want to look to see what

1 the notional value is for what I would sell those for. So
2 let's do the same thing again on the other side.

3 So we'll enter again number of gold contracts, 100.

4 Okay? Number of ounces, still the same, 100, right?

5 A. Yes.

6 Q. And we'll assume again this time that the price has moved
7 up the same amount of \$1, right? So it's now \$1201 per ounce.
8 Okay?

9 A. Okay.

10 Q. We see that coming in. So if we do the same math as we
11 did before, the notional value of my 100 gold contracts is now
12 \$12,010,000, right?

13 A. Correct.

14 Q. Okay. And so if I'm selling these 100 gold contracts,
15 again, the buyer doesn't pay me that \$12,010,000, right?

16 A. Correct.

17 Q. But I would get a profit of \$10,000, right?

18 A. Correct.

19 Q. And that's the difference between what I bought those 100
20 contracts for and what I sold them for, right?

21 A. Correct.

22 Q. And so in this instance, it's buying low and selling high?

23 A. Correct.

24 Q. And my profit is a lot less than \$12,010,000?

25 A. Yes.

1 MS. CHURCH: Okay. Thank you, Mr. White. We can
2 take that down.

3 BY MS. CHURCH:

4 Q. On direct examination and just now, we talked a bit about
5 bids and offers and trading terminology, right?

6 A. Yes.

7 Q. Well, let's talk about the mechanics as you testified to
8 on direct examination, how these orders are actually entered
9 onto the CME's Globex system. Okay?

10 A. Okay.

11 Q. So if you want to buy or sell a futures contract on the
12 CME, you actually have to enter the order onto Globex, right?

13 A. Correct.

14 Q. And it was the same process in 2009 and 2010, right?

15 A. Yes.

16 Q. And when you place a bid to buy or an offer to sell a
17 futures contract, you need to specify the commodity. So we've
18 been talking, like, gold futures, right?

19 A. Yes.

20 Q. Okay. And then you need to specify the price?

21 A. Yes.

22 Q. The quantity?

23 A. Yes.

24 Q. And whether you're buying or selling, right?

25 A. Yes.

1 Q. Okay. And once that bid or offer is on Globex, it's a
2 real order, right?

3 A. Yes.

4 Q. It's immediately executable, right?

5 A. Yes.

6 Q. It's tradeable?

7 A. Yes.

8 Q. And if it's matched in Globex, it's executed, right?

9 A. Yes.

10 Q. That means it's filled?

11 A. Yes.

12 Q. There's no taking it back, right?

13 A. Correct.

14 Q. There's no do-over, right?

15 A. Correct.

16 Q. It's binding on both sides, right?

17 A. Correct.

18 Q. Both sides have to honor that trade, right?

19 A. Yes.

20 Q. Let's turn to what a trader, a human trader actually sees
21 when they're buying and selling on Globex. Okay.

22 I would like to show you -- and the witness only --
23 what's been marked for identification as Defense Exhibit 57,
24 if we may pull that up for the witness only, please.

25 Do you see this image on your screen, Mr. Scheerer?

1 A. Yes.

2 Q. Okay. Great. And you recognize this exhibit as the image
3 of a TT screen or ladder, right?

4 A. Yes.

5 Q. Okay. And TT stands for Trading Technologies?

6 A. Yes.

7 Q. Trading Technologies offers a platform that traders can
8 use to enter their orders electronically on Globex, right?

9 A. Correct.

10 Q. And it's sometimes called a TT ladder or TT screen?

11 A. Yes.

12 Q. Okay. And a TT ladder shows Globex's visible order book
13 which we talked about, right?

14 A. Yes.

15 Q. It shows what's actually happening on Globex, right?

16 A. Yes.

17 Q. So there can be a TT ladder for gold futures contracts,
18 for example?

19 A. Yes.

20 Q. And there can be TT ladders for other commodities, right?

21 A. Yes.

22 Q. The TT ladder for gold futures contracts would show the
23 visible orders to buy and sell gold futures, right?

24 A. Yes.

25 Q. In 2009 and 2010, human precious metals futures traders

1 used TT ladders to place electronic orders on the CME, right?

2 MS. JENNINGS: Objection. Lack of foundation.

3 THE COURT: Okay. Overruled if you know the answer.

4 But finish the question.

5 BY MS. CHURCH:

6 Q. Yes. So in 2009 and 2010, human precious metals futures
7 traders used TT ladders to place electronic orders on the CME,
8 correct?

9 A. I believe they did. TT and several other front-end
10 providers, they could use.

11 Q. And they used a TT ladder like what you see as a
12 demonstrative exhibit in front of you?

13 A. They were able to, yes.

14 Q. Okay. Does Defense Exhibit 57 fairly and accurately show
15 what a TT ladder for trading precious metals futures looked
16 like in 2009 and 2010?

17 A. Well, it shows me -- yes. I mean, it shows me what
18 trading for the December 2013 contract looked like. I don't
19 know what year this was snapped.

20 Q. But this is generally what it looked like back in 2009 and
21 2010?

22 A. Sure.

23 Q. Yes?

24 A. Yes.

25 MS. CHURCH: Your Honor, we would move to publish

1 Defense Exhibit 57 for demonstrative purposes only.

2 MS. JENNINGS: No objection.

3 THE COURT: All right. It's allowed.

4 MS. CHURCH: We would ask to publish it to the jury.

5 BY MS. CHURCH:

6 Q. All right. Do you still have the TT ladder in front of
7 you, Mr. Scheerer?

8 A. Yes.

9 Q. Okay. So back in 2009 and 2010, a human trader sitting at
10 his desk that we've talked about, you know, with the computer
11 screens in front of him or her might use a TT ladder just like
12 this to enter orders onto Globex to buy and sell gold precious
13 metals futures, right?

14 A. Yes.

15 Q. Okay. Let's walk through some of the information on the
16 TT ladder. So as you mentioned just a moment ago, you can see
17 up in the top left corner where it says "CME-AGC." Do you see
18 that?

19 A. Yes.

20 Q. Does -- that indicates that it's a TT ladder for gold
21 futures contracts, right?

22 A. Well, it indicates that the contract is GC, which is gold.

23 Q. Okay.

24 A. And the "Dec 13" tells you the expiration of that
25 contract.

1 Q. So it's for gold futures contracts, buying and selling
2 those?

3 A. Yes.

4 Q. Okay. And it says December 2013 or December 13, but as we
5 discussed, this is generally what a TT ladder looks like back
6 in 2009 and 2010 for trading precious metals futures, right?

7 A. Yes.

8 Q. So we're going to ignore the buttons over on the left side
9 for a minute, and we're going to focus in on what's in the
10 middle. Okay? Do you see the blue column, a gray column, and
11 a red column?

12 A. Yes.

13 Q. Right. And I'm going to have to move over here because
14 that is far and the font is small, so give me a moment.

15 All right. So we're going to start with the gray
16 column in the middle. Okay?

17 A. Okay.

18 Q. And do you see each row in the gray column has numbers,
19 right?

20 A. Yes.

21 Q. Those numbers are the price per ounce of gold, right?

22 A. Yes.

23 Q. Okay. And then looking in the very middle of the gray
24 column, do you see the number 12890?

25 A. Yes.

1 Q. That's \$12,089, right?

2 A. No. It's 1289 --

3 Q. I apologize. I did that again. It's me and my numbers
4 which is why we're doing it carefully.

5 It's \$1289, right?

6 A. Yes.

7 Q. And so if you go up a row to 12891, do you see that?

8 A. Yes.

9 Q. That's \$1289.10, right?

10 A. Correct.

11 Q. And if we go to the row below the \$1289, it's \$1288.90,
12 right?

13 A. Correct.

14 Q. Okay. And then if we just start at the very bottom of the
15 gray column and go all the way up to the top, those are prices
16 getting higher, right?

17 A. From the bottom, yes.

18 Q. The bottom up, that's how it goes, right?

19 A. Yes.

20 Q. Okay. And each row is increasing in price by 10 cents,
21 right?

22 A. Correct.

23 Q. And this is what you talked about on direct examination
24 with Ms. Jennings, that each of those gold futures contracts
25 are priced in 10-cent increments, right?

1 A. Correct. The minimum tick, yes.

2 Q. That's a tick --

3 A. Yes.

4 Q. -- right?

5 Okay. And so at the very bottom, the price per ounce
6 of gold here is \$1288, right?

7 A. Yes.

8 Q. And then it goes up one tick from there?

9 A. Yes.

10 Q. To \$1288.10?

11 A. Yes.

12 Q. And then up one tick from there to \$1288.20, right?

13 A. Yes.

14 Q. And then so on all the way up, right?

15 A. Yes.

16 Q. Okay. And then on this TT ladder, at the very top, the
17 price per ounce of gold is \$1290.10, right?

18 A. Yes.

19 Q. Okay. So we've covered that we're dealing with gold
20 futures, and we've talked about the prices, right? Let's now
21 turn to the blue and the red columns. Okay?

22 A. Okay.

23 Q. So there are numbers in some of the blue boxes and some of
24 the red boxes, right?

25 A. Yes.

1 Q. Okay. Each of those numbers shows the amount of limit
2 orders or contracts available to buy or sell at that
3 particular price, right?

4 A. Correct.

5 Q. Okay. So let's focus in on the blue column first, and
6 we're going to go to the bottom where there are contracts. So
7 the blue column here, that's the buy side, right?

8 A. Yes.

9 Q. Those numbers in the blue boxes show the bids, right?

10 A. Yes. The bid quantities, yes.

11 Q. The bid quantities. And the number -- the numbers in the
12 blue boxes are the number of contracts that traders are
13 bidding to buy at that specific price, right?

14 A. Yes.

15 Q. Okay. So let's focus in on the top blue box for a moment.
16 Do you see the number 3?

17 A. Yes.

18 Q. And that's next to the price of \$1288.90 per ounce, right?

19 A. Yes.

20 Q. So that means as a possibility that someone has placed a
21 bid to buy three gold contracts, gold futures contracts, for a
22 price of \$1288.90 per ounce, right?

23 A. That is one possibility, yes.

24 Q. So let's go into some of the possibilities.

25 A. Okay.

1 Q. It might be one trader who's placed an order to buy three
2 contracts at that price, right?

3 A. Yes.

4 Q. Okay. Or it might be one trader who's placed a bid to buy
5 two contracts at that one price and another trader who's
6 entered a bid to buy one contract --

7 A. Yes.

8 Q. -- at that price, right?

9 Or it could be an algorithm that placed the order to
10 buy three contracts at that price, right?

11 A. Yes.

12 Q. Or it might be a human trader who placed the order to buy
13 three contracts at that price, right?

14 A. Yes.

15 Q. Again, the exchange is anonymous, right?

16 A. Right. Correct.

17 Q. And as a trader, you can see the order, but you have no
18 idea who placed it, right?

19 A. Yes.

20 Q. Okay. So let's assume it's a human trader with the common
21 name of John Doe. Okay. He placed the order to buy three
22 contracts at a price of \$1288.90. Okay?

23 A. Okay.

24 Q. And let's say you're looking at the order and you're
25 thinking of trading, but you'd prefer a different price. You

1 can't call up John Doe and negotiate to get a better price on
2 those three contracts, right?

3 A. Correct.

4 Q. You don't even know who he is, right?

5 A. Correct.

6 Q. All you can do is see the order, right?

7 A. The quantity, yes.

8 Q. The quantity. Okay. And then you can decide if you want
9 to trade or not, right?

10 A. If you want to sell at that price, you mean?

11 Q. Yes.

12 A. Yes.

13 Q. Okay. So let's look at the next blue box down. There's
14 the number 9 next to the price of \$1288.80 per ounce. Do you
15 see that?

16 A. Yes.

17 Q. That means that one or more market participants have
18 placed bids to buy a total of nine contracts for \$1288.80 per
19 ounce --

20 A. Correct.

21 Q. -- right?

22 And it could be, again, one trader who placed all
23 nine, right?

24 A. Yes.

25 Q. Or it could be a multiple quantity of traders who entered

1 different orders, right?

2 A. Yes.

3 Q. And the blue boxes, I think as you mentioned on direct
4 examination, go all the way down ten levels, right?

5 A. Correct.

6 Q. And that's what a trader would have seen?

7 A. Yes.

8 Q. Okay. Let's switch over to the red side.

9 A. Okay.

10 Q. The red column shows the limit orders or contracts that
11 are offered for sale, right?

12 A. Yes.

13 Q. The red side is the sell side?

14 A. Yes.

15 Q. And it shows the contracts that are on the offer, right?

16 A. Yes.

17 Q. Okay. Those numbers in the red boxes show the quantity of
18 contracts being offered for sale at that moment, right?

19 A. Yes.

20 Q. Let's look at the number at the bottom on the red side,
21 the 2. Do you see that?

22 A. Yes.

23 Q. And that's next to a price of \$1289.10, right?

24 A. Yes.

25 Q. Okay. That means someone or some traders have placed an

1 order to sell two contracts at that price, right?

2 A. Yes.

3 Q. And, again, we don't know who placed the order?

4 A. Correct.

5 Q. We don't know if it's a human trader or an algorithm,
6 right?

7 A. Correct.

8 Q. And we don't know if it's one order to sell two contracts
9 or two separate orders to sell one contract each, right?

10 A. Correct.

11 Q. And if you look at the rest of the red column, you see
12 other numbers in the red boxes going all the way to the top,
13 right?

14 A. Yes.

15 Q. And those are offers to sell different quantities of gold
16 futures contracts at different price increments, right, on the
17 TT ladder?

18 A. Yes.

19 Q. Okay. And just the 2, that is the lowest price that
20 someone is willing to sell those contracts for, right?

21 A. Yes.

22 Q. Okay. So stepping back, if we look at the blue side,
23 there are ten levels of orders in prices going down from the
24 middle, right?

25 A. Yes.

1 Q. And then on the red side, the same ten levels going up,
2 right?

3 A. Yes.

4 Q. Okay. And at each price level, we see the commodity,
5 right?

6 A. Yes.

7 Q. The price?

8 A. Yes.

9 Q. The quantity?

10 A. Yes.

11 Q. And whether the order is to buy or sell, right?

12 A. Yes.

13 Q. Okay. And on this TT ladder, there is no information
14 about the strategy that the trader is using to enter their
15 orders, right?

16 A. Correct.

17 Q. Okay. There's no information on this TT ladder about the
18 trader's purpose behind -- or objectives for their orders,
19 right?

20 A. Correct.

21 Q. For each order, it's those four things, right? It's the
22 quantity, the price, the commodity -- here, gold futures --
23 and whether they're buying or selling, right?

24 A. Yes.

25 Q. Okay. So we've been looking at the blue, the gray, and

1 the red columns. Now looking over on the right-hand side of
2 this TT screen, do you see like a number 1 in kind of an
3 orangey-red?

4 A. Yes.

5 Q. Okay. And that's at a price per ounce of \$1288.90?

6 A. Yes.

7 Q. Is -- the 1 in that orange box, is that the last traded
8 order?

9 A. I believe it is, yes.

10 Q. Okay. So in this case, it would be the last traded order
11 was for one contract at \$1288.90?

12 A. Yes.

13 Q. Okay. And that would be a backward-looking number, right?

14 A. Yes, already happened.

15 Q. Okay. But the other contracts that are on this TT ladder
16 are forward looking?

17 A. Well, realtime.

18 Q. Realtime. Okay. So they haven't happened yet. They're
19 offered in realtime, but they haven't been executed?

20 A. They -- correct.

21 Q. Okay. They haven't been traded yet?

22 A. Yes.

23 Q. So let's talk about the concept of "top of the book."

24 A. Okay.

25 Q. You're familiar with that term?

1 A. Yes.

2 Q. Great. So the top of the book refers to the best price on
3 the bid side or the offer side, right?

4 A. Correct.

5 Q. And that's trading terminology, right?

6 A. Yes.

7 Q. Okay. Orders at the top of the book are most at risk,
8 right?

9 A. Most at risk.

10 Q. Meaning most likely to be executed.

11 A. Yes.

12 Q. Okay. So focusing on the TT ladder, here the best bid is
13 for the three contracts at \$1288.90, right?

14 A. Yes.

15 Q. Okay. And that's the highest price a trader is willing to
16 pay to buy a gold futures contract at that moment?

17 A. Yes.

18 Q. Okay. And there are those three contracts, that's what's
19 offered?

20 A. Yes.

21 Q. Okay. The best price on the sell side in red are the two
22 contracts at the \$1289.10, right?

23 A. Yes.

24 Q. And that's the top of the book there on the sell side?

25 A. Yes.

1 Q. Okay. So here, it's the top of the book on the sell side
2 even though it's really at the bottom of the TT --

3 A. Yes.

4 Q. Okay. And that's, as I think we mentioned just a moment
5 ago, that's the lowest price any trader in this market is
6 willing to sell the gold futures contract for at that
7 moment --

8 A. Yes.

9 Q. -- right?

10 Okay. So the closer the order is to either the best
11 bid or the best offer, it's more likely to trade?

12 A. Say that again.

13 Q. So the closer an order is to the best bid or the best
14 offer, the more likely it is to trade, right?

15 A. Yes.

16 Q. Okay. So if I want to trade and I want my -- I want my
17 order to be at the top of the book, right?

18 A. Yes.

19 Q. Okay. That's where it's more likely to be executed,
20 right?

21 A. Potentially, yes. Yeah.

22 Q. So here, just as an example, there are 19 contracts on the
23 bid side at \$1288 even. Do you see that?

24 A. Yes. Down at the bottom, yes.

25 Q. So those 19 contracts are less at risk meaning less likely

1 to trade than those three contracts at the top at \$1288.90?

2 A. Well, they could all trade. They're all tradeable.

3 They're all executable. So, I mean, less likely, the 88 --

4 the top bid is going to trade before the bottom bid, yes.

5 Q. If I want to execute a trade and get -- and get those
6 three contracts, I'm going to want to go pay -- you know, buy
7 low, right, and sell high essentially. So if I want to buy
8 those contracts, I would love to buy them at \$1288 and if I --
9 right?

10 A. If you want to buy, you want to -- you would prefer to
11 pay --

12 Q. Buy --

13 A. Yeah. Okay.

14 Q. -- less. And then you want to sell them high?

15 A. Okay.

16 Q. Okay. And so you would agree that orders that are priced
17 better are more likely to trade sooner, right?

18 A. Priced higher?

19 Q. Yes.

20 A. Yes.

21 Q. Okay. So on the offer side here, those 20 contracts are
22 less at risk or less likely to be executed sooner than those
23 contracts, those two contracts at the \$1289.10, right?

24 A. Yeah. I'll say less likely. When you say "risk," you
25 keep saying they're at risk. That's the only, I guess, word I

1 don't agree with because everyone who is placing these orders
2 want to -- they have the intention to trade them. They
3 actually want to get filled. So I don't know that they view
4 that as a risk.

5 Q. Let's stop there for a second. We just talked about --
6 we're talking about the TT ladder, right?

7 A. Yes.

8 Q. And we just talked about how there is nothing on this TT
9 ladder to indicate intent, right?

10 A. Well, but that's --

11 Q. Did you understand the question?

12 THE COURT: Yes, you can answer the question. Go
13 ahead and answer the question.

14 BY THE WITNESS:

15 A. Yes, so, you know, every order that's placed on Globex
16 should have the intent to trade when it's placed.

17 BY MS. CHURCH:

18 Q. And that's your opinion, correct?

19 A. I believe it's a rule.

20 Q. You're not here to testify about the rules, are you,
21 Mr. Scheerer?

22 A. No, I'm not.

23 Q. You're not an expert in the CME's rules, are you,
24 Mr. Scheerer?

25 A. No. I'm not part of market regulation.

1 Q. Okay. Let's focus on the TT ladder and the mechanics of
2 buying and selling on the CME. Okay?

3 A. Okay.

4 Q. So let's turn back to trading terminology for a moment.

5 A. Okay.

6 Q. Okay. The bid-ask spread which you talked about on direct
7 examination --

8 A. Yes.

9 Q. -- okay, so that's just the difference between the best
10 bid and the best offer, right?

11 A. Yes.

12 Q. Okay. So looking just at the TT ladder, the bid-ask
13 spread is 20 cents, right?

14 A. Correct.

15 Q. And that's the difference between the \$1288.90 and the
16 \$1289.10, right?

17 A. Correct.

18 Q. Okay. And you're also familiar with the term, to bring in
19 one more piece of terminology, of "new best"?

20 A. "New best"?

21 Q. Yes.

22 A. Yeah.

23 Q. Okay. So when a trader is placing a bid or offer onto the
24 exchange, it's possible to improve on the price, right, of
25 what's already there?

1 A. Correct.

2 Q. So let's say, you know, looking at the TT ladder, I wanted
3 to enter a new best bid. In that case, I could enter an order
4 to buy, you know, just one gold futures contract in the blue
5 box at \$1289 even, right?

6 A. Correct.

7 Q. And that would create a new best bid, right?

8 A. Yes.

9 Q. Okay. And it's just one tick higher than what's already
10 there. 10 cents, right?

11 A. Yes.

12 Q. Or I could do the opposite, right?

13 A. Yes.

14 Q. I could create a new best offer on the sell side by
15 entering one contract right below those two at \$1289.10,
16 right?

17 A. Yes.

18 Q. And that's one tick lower than what's currently the best
19 offer, right?

20 A. Yes.

21 Q. Okay. So we've covered concepts like now top of the book
22 which we just talked about, right?

23 A. Yes.

24 Q. New best, right?

25 A. Yes.

1 Q. Best bid or offer, right?

2 A. Yes.

3 Q. Okay. Let's get ready to place some hypothetical orders
4 on the TT ladder. Okay?

5 A. Okay.

6 Q. So this is going to get us to those buttons on the left
7 side that we skipped over at the start. Okay?

8 A. Okay.

9 Q. So these are the buttons that a human trader would use to
10 enter orders onto -- that they want to -- to enter their
11 orders, right?

12 A. If they're using this screen, yes.

13 Q. Okay. So a trader using this screen would click on one of
14 these buttons and place their order onto the ladder itself,
15 right?

16 A. Yes.

17 Q. So just as an example, a human trader could use their
18 mouse or their keyboard and click on one of the numbers. Do
19 you see those, the 1, 5, 10, 20, 50, and 100? Do you see
20 those?

21 A. Yes.

22 Q. So a human trader could use their mouse or keyboard and
23 click on one of those and place that number somewhere on the
24 blue or the red to enter an order, right?

25 A. Yeah. I believe that's the quantity. Those numbers

1 represent the quantity that you want on your order.

2 Q. Okay. Or rather than just clicking on one of those
3 numbers, they can type in a specific quantity and enter that
4 to buy or sell?

5 A. Yeah. I believe that's what that box with "10" is.

6 Q. Okay. Do you see the button for ICE?

7 A. I do.

8 Q. Okay. And you're familiar with the term "iceberg order"?

9 A. Yes. I didn't know that stood for iceberg but, yes, I
10 know what iceberg orders are.

11 Q. Okay. We'll talk about those in a little bit. Okay?

12 A. Okay.

13 Q. And there are other buttons that a human trader can use
14 that you see over on the left-hand side to cancel orders,
15 right?

16 A. The "delete all" and "delete," yes.

17 Q. Okay. So let's say in this hypothetical I'm a human
18 trader sitting in front of my computer. I'm looking at this
19 TT ladder. Okay?

20 A. Yes.

21 Q. Okay. And I want to buy or sell gold futures contracts,
22 right?

23 A. Okay.

24 Q. So I'm using my mouse, and I click on one of those
25 numbers, and then I click on either, you know, a red or a blue

1 to enter my order, right?

2 A. Okay.

3 Q. Yes?

4 A. Well, it's been a long time since I used a TT screen, so
5 I'm -- I believe that's how you do it, but...

6 Q. Fair enough. And as we talked about, there's no button
7 that allows me to show my trading strategy, right?

8 A. Correct.

9 Q. There's no button to show what I'm hoping is going to
10 happen with my order, right?

11 A. Correct.

12 Q. As long -- and there's no place really anywhere on this TT
13 ladder to show how long I intend to keep my order open, right?

14 A. Correct.

15 Q. So let's talk about what happens when an order is
16 executed. Okay?

17 A. Okay.

18 Q. So let's say I'm looking at this TT ladder, and I see the
19 two contracts on the red side at the top of the book, the best
20 offer, for \$1289.10. Okay?

21 A. Yes.

22 Q. So if I wanted to buy those two contracts, I could enter a
23 blue order to buy those two contracts at the exact same price,
24 right? So \$1289.10, right?

25 A. Correct.

1 Q. And that's where I'd enter the 2 where Mr. White just
2 highlighted?

3 A. Again, I think so but, yes, you would enter a bid at a
4 price of \$1289.10 to buy it there.

5 Q. And because they have the same price and the same quantity
6 and it's the same commodity, they match, right?

7 A. If you were bidding for two contracts, you would get
8 filled on those two contracts, yes.

9 Q. And then the exchange would execute that transaction
10 between me and the trader who was offering to sell those two
11 contracts in red, right?

12 A. Yes.

13 Q. Okay. So I just bought two gold contracts at a price per
14 ounce of \$1289.10, right?

15 A. Correct.

16 Q. So I'm now long those two gold contracts, gold futures
17 contracts?

18 A. Yes.

19 Q. Okay. I bet we could even calculate the notional value,
20 but we're not going to. Okay. So let's say I now decided
21 that I wanted to sell the two gold futures contracts that I
22 just bought. Okay?

23 A. Okay.

24 Q. The best bid on the blue side for the three contracts is
25 at the price of \$1288.90, right?

1 A. Okay.

2 Q. So if I wanted to sell at that price, I could enter an
3 order in red, in the red side, for the two contracts at the
4 exact same price of \$1288.90, right?

5 A. Yes.

6 Q. And when I did that, my red order to sell would match
7 against the resting blue order at the top of the book, right?

8 A. Correct.

9 Q. And the exchange would execute the order?

10 A. Yes.

11 Q. It's a match?

12 A. Yes.

13 Q. I just sold those two gold contracts, right?

14 A. Yes.

15 Q. And there's no do-over with that trade, right?

16 A. Correct.

17 Q. There's no taking it back, right?

18 A. Correct.

19 Q. So in my hypotheticals, we've been placing an order on one
20 side of the market and then the other side of the market,
21 right?

22 A. Yes.

23 Q. Okay. So looking at the TT ladder, you know, we've been
24 placing an order on the blue side or on the red offer side,
25 right?

1 A. Yes.

2 Q. Some traders in the market have strategies where they're
3 placing bids on the blue side and offers on the red side at
4 the same time, right?

5 A. Correct.

6 Q. And a trader doesn't have to be on only one side or the
7 other, right?

8 A. Correct.

9 Q. Okay. Let's shift gears and talk about modifying and
10 canceling orders. Okay?

11 A. Okay.

12 Q. And you talked about this a little bit on direct
13 examination with Ms. Jennings, right?

14 A. Yes.

15 Q. Okay. So after someone places an order onto Globex, they
16 can modify the order, right?

17 A. Yes.

18 Q. They can change the price?

19 A. Yes. As long as it hasn't traded, yes, they can change --
20 they can modify, yes.

21 Q. As long as the price hasn't changed -- or the price hasn't
22 changed, they can change the quantity, right? Or as long as
23 the trade hasn't executed, they can change --

24 A. Yes.

25 Q. -- the quantity?

1 A. Yes.

2 Q. And assuming it hasn't been filled, they can cancel the
3 order, right?

4 A. Yes.

5 Q. A trader can cancel an order at any time?

6 A. Yes.

7 Q. A human trader can click on the button that we were
8 talking about, the "delete" or the "delete all" and cancel
9 their orders, right?

10 A. Yes.

11 Q. Okay. And you'd agree it's common for orders to be
12 canceled?

13 A. Common? Yes. Orders are canceled, yes.

14 Q. There's no minimum amount of time that an order has to be
15 on Globex before it's modified or canceled, right?

16 A. No.

17 Q. And a trader doesn't have to tell the market how long they
18 intend to keep their order open, correct?

19 A. Correct.

20 Q. And there's no button for that on the TT ladder?

21 A. Correct.

22 Q. So we've been talking about placing orders on Globex as a
23 human trader, right?

24 A. Yes.

25 Q. So we've been using the TT ladder, right?

1 A. Yes.

2 Q. Let's talk about algorithms for a moment. Okay?

3 A. Okay.

4 Q. You talked about them a little bit on direct examination,
5 correct?

6 Algorithms have to specify the same four things as
7 human traders, right? So the commodity, the price, the
8 quantity, and whether they're buying or selling when they're
9 entering orders, right?

10 A. Correct.

11 Q. And algorithms place their orders on Globex too, right?

12 A. Yes.

13 Q. Okay. But the algorithms don't use a TT ladder, do they?

14 A. No.

15 Q. They don't see the red and blue boxes, right?

16 A. No.

17 Q. Okay. They don't click on boxes with the mouse or a
18 keyboard, right?

19 A. Correct.

20 Q. But they have -- algorithms have access to the same order
21 book data as the human traders, but it's just not displayed on
22 the TT ladder, right?

23 A. Well, like, they're not looking at leveraging a TT ladder,
24 yes.

25 Q. But they have the same data, correct?

1 A. Yes.

2 Q. And because they're computers, they get the data directly
3 rather than having to look at it on the screen, right?

4 A. You mean versus a human?

5 Q. Yes.

6 A. Yes.

7 Q. Okay. Algorithms are capable of acting quickly?

8 A. Yes.

9 Q. They can act faster than human traders?

10 A. Yes.

11 Q. And they can place and cancel orders faster than human
12 traders, right?

13 A. Yes.

14 Q. Okay. So we've now been spending some time looking at
15 this image of a TT ladder, right? And it's a screenshot,
16 right?

17 A. Yes.

18 Q. It's an image. It's a static image, right?

19 A. Yes.

20 Q. It hasn't changed the whole time we've been looking at it,
21 right?

22 A. Yes.

23 Q. Okay. Let's turn to some exhibits that do show some
24 market movement on a TT ladder. Okay?

25 A. Okay.

1 MS. CHURCH: And before -- if we can take that down,
2 please, Mr. White. Thank you.

3 BY MS. CHURCH:

4 Q. Before you came to court today, you watched two short
5 videos of activity on TT ladders, right?

6 A. Yes.

7 Q. Okay. And those videos are marked for identification as
8 Defense Exhibit 58 and Defense Exhibit 59. Okay?

9 A. Okay.

10 Q. And from what you saw in those videos, based on the prices
11 that you saw, they looked like they showed trading activity in
12 gold futures markets, right?

13 A. Yes.

14 Q. And those videos fairly and accurately show trading
15 activity a gold futures trader might see on his TT ladder in
16 2009 and 2010, right?

17 A. I'm -- yes.

18 MS. CHURCH: Okay. Your Honor, we'd offer Defense
19 Exhibits 57 and 58 for demonstrative purposes only.

20 THE COURT: All right. Any objection other than the
21 previous ones?

22 MS. JENNINGS: Your Honor, may we just be briefly
23 heard on sidebar?

24 THE COURT: All right.

25 (Proceedings heard at sidebar:)

1 MS. JENNINGS: Your Honor, I just want to confirm, I
2 believe Ms. Church is referring to when this witness was shown
3 this on cross-examination in the prior trial. I certainly
4 have not shown him those TT videos, so I just want to make
5 sure if both were shown to him, just -- I believe it was, but
6 if not, I would ask that he be shown them before, you know,
7 and acknowledge that he does have some basis of knowledge.

8 MS. CHURCH: Your Honor, and I can respond. And I
9 also misspoke, and I'll correct the record when I get back up
10 there. 58 and 59.

11 We provided them to Mr. Marchesi at the CME so that
12 we could review them in advance, so we know that he has seen
13 them.

14 MS. JENNINGS: Understood then. I did not know that.
15 Thank you.

16 THE COURT: Right. So you actually showed him this
17 morning?

18 MS. CHURCH: No. They were sent a week ago, and
19 Mr. Marchesi said that he would have this witness review them.

20 THE COURT: I thought you had asked him whether he
21 had reviewed them this morning.

22 MS. CHURCH: Before today, that's all.

23 THE COURT: All right. Okay. They're allowed over
24 the previous objections.

25 (Proceedings heard in open court:)

1 THE COURT: All right. You can use 58 and 59 as
2 demonstratives.

3 Ladies and gentlemen, when an exhibit is entered into
4 evidence as a demonstrative exhibit only, as the name
5 suggests, the exhibit is to demonstrate for you and help
6 explain other evidence in the case. It's not itself evidence
7 of the -- you know, direct evidence of the facts in the case.

8 So you actually will not get demonstrative exhibits
9 back when you deliberate. All right. So that's the purpose
10 of demonstrative exhibits.

11 All right. You can use 58 and 59.

12 MS. CHURCH: Yes, your Honor.

13 And, Mr. White, will you please bring up Defense
14 Exhibit 58 first? And before you start playing it, let's
15 orient ourselves to what's on the screen.

16 Nope.

17 MR. WHITE: Sorry.

18 MS. CHURCH: Mr. Scheerer, does this waiting heighten
19 your anticipation of what's on the video?

20 THE WITNESS: I've already seen it.

21 MR. WHITE: There it is.

22 MS. CHURCH: There we go. Okay.

23 BY MS. CHURCH:

24 Q. So before we start playing it, fingers crossed that it's
25 going to work, let's just look and see what we see on the --

1 talk about what we see on the screen. The same blue side for
2 bids, right?

3 A. Yes.

4 Q. Red side for offers, the same?

5 A. Yes.

6 Q. Okay. Gray in the middle still shows price, right?

7 A. Yes.

8 Q. And then the numbers in the blue and the red show the
9 quantity of contracts available for sale at that price?

10 A. Yes.

11 Q. Okay. And then before we start playing, and it's kind of
12 hard to see, but if you look at the blue side, the best bid,
13 do you see four contracts for \$1245.40? Can you see that?

14 A. Yes.

15 Q. Okay. Great. I'm having a hard time. And so at the top
16 of the book on the sell side, the best offer is seven
17 contracts at \$1245.50, right?

18 A. Yes.

19 Q. Okay. So the bid-ask spread here is 10 cents?

20 A. Yes.

21 MS. CHURCH: And, your Honor, for the record, this
22 video is going to be about 11 seconds.

23 THE COURT: All right. Go ahead.

24 MS. CHURCH: Mr. White, will you please play the
25 video?

1 (Said video played in open court.)

2 BY MS. CHURCH:

3 Q. All right. It's done.

4 So what we just saw on this video, it showed prices
5 going up and down, right?

6 A. Yes.

7 Q. It showed orders getting entered and canceled?

8 A. Well, maybe. It showed trades and movement of the bid-ask
9 spread.

10 Q. Okay. And so it showed orders getting filled most likely,
11 right?

12 A. Definitely filled because there were trades.

13 Q. Yep. And we saw basically gold futures contracts being
14 bought and sold on the exchange, right?

15 A. Yeah. The symbol in this screenshot is not there, but I'm
16 taking your word for it that, yes, this is still gold
17 contracts.

18 Q. Yes, indeed. And so we saw these gold futures contracts
19 being bought and sold at different prices and different
20 quantities, right?

21 A. Yes.

22 Q. Okay. But looking at the video, you don't know who placed
23 those offers, right?

24 A. Correct.

25 Q. Or those bids, right?

1 A. Correct.

2 Q. You don't know who, if anyone, was canceling orders if
3 those happened?

4 A. Correct.

5 Q. You don't see the trading strategies?

6 A. Correct.

7 Q. It just -- it shows market, the market moving quickly,
8 doesn't it?

9 A. Yes.

10 Q. Okay. And from looking at the video, it sometimes seems
11 the contracts available at different price levels changes
12 almost instantly, right?

13 A. Yes, they do change, yes.

14 Q. Okay. And this is essentially the CME markets at work,
15 CME's market at work?

16 A. Yes.

17 Q. So looking at the very end of this video, so this is
18 about, you know, 11 seconds, as I mentioned earlier, it now
19 shows that the best bid -- oops. We just lost it. There we
20 go. Can you restart it? Now we're back at the end.

21 So now it shows the best bid is for seven contracts
22 at \$1244.80. Does that look right?

23 A. Yes.

24 Q. So -- hold on just a moment. Yes.

25 And that's 60 cents below where it was when we

1 started the video 11 seconds earlier. I'm not going to make
2 you remember what it was, but does \$1245.40 seem about right?

3 A. Yes.

4 Q. Okay. And that's 60 cents per ounce difference, right?

5 A. Correct.

6 Q. And on the sell side, the best offer is for seven
7 contracts at \$1244.90, right?

8 A. Correct.

9 Q. And before, it was \$1245.50, right?

10 A. Yes.

11 Q. Okay. So again, it's 60 cents below where the best offer
12 was just 11 seconds earlier, right?

13 A. Yes.

14 Q. This particular trading looks like it could be dominated
15 by computers, right?

16 A. I don't know. You don't know that. I mean, computers are
17 definitely -- well, algorithms are definitely probably
18 executing orders in there as are manual traders, so it's a
19 combination.

20 Q. Okay. But the speed can sometimes indicate that
21 algorithms are trading, right?

22 A. Yes.

23 Q. Okay. And let's watch just one more video.

24 A. Okay.

25 MS. CHURCH: And, Mr. White, can you please bring up

1 Defense Exhibit 59 and again pause before playing as we orient
2 ourselves.

3 BY MS. CHURCH:

4 Q. So another image but this time a video of another TT
5 ladder, right?

6 A. Yes.

7 Q. And here the best bid on the blue side is for one contract
8 at \$1288 even, right?

9 A. Yes.

10 Q. Okay. And the best offer on the red side is 10 cents
11 higher for 11 contracts at \$1288.10, right?

12 A. Yes.

13 Q. The bid-ask spread is 10 cents, right?

14 A. Yes.

15 MS. CHURCH: Okay. For the record, this video is a
16 little longer, 31-1/2 seconds or thereabouts.

17 So, Mr. White, will you please play the video.

18 (Said video played in open court.)

19 BY MS. CHURCH:

20 Q. Okay. So at the end of this video in Defense Exhibit 59,
21 the top of the book on the bid side is nine contracts at
22 \$1288.90, right?

23 A. Yes.

24 Q. And that's about 31-1/2 seconds later, the best bid is 90
25 cents higher than where we were when we started the video?

1 A. Yes.

2 Q. Okay. And if we look at the top of the book on the offer
3 side, it's now the best -- the top of the book is \$1289 even,
4 right?

5 A. Yes.

6 Q. So again, 90 cents higher?

7 A. Yes.

8 Q. This video shows the CME market at work?

9 A. Yes.

10 Q. It shows in some respects how fast the market can move?

11 A. Yes.

12 Q. It shows how fast orders can be executed?

13 A. Yes.

14 Q. It shows how fast orders can be entered?

15 A. Yes.

16 Q. How fast they can be traded?

17 A. Yes.

18 Q. How fast they can be canceled?

19 A. Yes.

20 MS. CHURCH: Okay. Thank you very much. You can
21 take that down, please.

22 So we've now spent a fair amount of time talking
23 about what human traders actually see when they're trading on
24 the exchange, right? We're going to go back to the TT ladder.

25 So, Mr. White, can we go back to Defense Exhibit 57,

1 please, and if we can just zoom in on the TT ladder itself.

2 There we go.

3 BY MS. CHURCH:

4 Q. So the TT ladder shows the visible order book, right?

5 A. Yes.

6 Q. And the blue and the red show the visible limit orders,

7 right?

8 A. Again, it shows the quantities and prices.

9 Q. Yes. So as I think you talked about on direct
10 examination, the visible order book, you know, as represented
11 on this TT ladder is a representation of the supply and demand
12 in the market, right?

13 A. Yes.

14 Q. Okay. So let's talk about some other types of orders.

15 You wanted to jump ahead of me and start getting into them
16 earlier, so now we're going to talk about them. Okay.

17 Icebergs.

18 A. Yes.

19 Q. You talked a little bit about them on direct examination?

20 A. Yes.

21 Q. So let's talk about them in maybe a little bit more detail
22 right now. Okay?

23 A. Okay.

24 Q. Icebergs are sometimes called hidden quantity orders,
25 right?

1 A. Yes.

2 Q. And this is, you know, the Beanie Baby example that you
3 talked about on direct, right?

4 A. Yes.

5 Q. An iceberg order is basically a single order for multiple
6 contracts that are then divided into smaller limit orders in
7 order to hide the actual quantity, order quantity, right?

8 A. The total quantity of the order, yes.

9 Q. Okay. So traders use icebergs when they don't want to
10 reveal the full quantity of contracts that they have to buy or
11 sell, right?

12 A. Yes.

13 Q. They don't want people to know that they have 20 Beanie
14 Babies in their basement, right?

15 A. Correct.

16 Q. Okay. So let's take a hypothetical example. Looking
17 again at Defense Exhibit 57, let's assume I wanted to place an
18 iceberg order to buy 100 contracts at the top of the book on
19 the blue side, okay, so that 1288.90.

20 A. Okay.

21 Q. Okay. So I buy an iceberg order to buy those 100
22 contracts with only one contract to be shown at a time so, you
23 know, essentially one Beanie Baby. Then the number 3 would
24 become a 4, right?

25 A. Correct.

1 Q. Other market participants would see that someone had
2 placed an order to buy one additional contract at the best
3 price of 1288.90, right?

4 A. Yes.

5 Q. But my order was to buy 100 contracts, not just the one
6 contract, right?

7 A. Yes.

8 Q. So if I placed a full-sized order, then the number 3 would
9 become 103, right?

10 A. Yes. If you placed a limit order, yes.

11 Q. And that 103 would reflect the actual demand in the market
12 based on my order to buy the contracts, right?

13 A. Well, it would show your actual demand.

14 Q. Yes.

15 A. Yes.

16 Q. And it would be seen by other traders in the market,
17 right?

18 A. Yes.

19 Q. But if I use an iceberg, the rest of the market doesn't
20 see that I placed an order to buy those 100 contracts, right?

21 A. Correct.

22 Q. They just see the one additional contract that's the
23 visible tip of the iceberg, right?

24 A. Yes.

25 Q. I have 99 more contracts to follow, right?

1 A. Correct.

2 Q. Okay. And those 99 contracts are hiding just below the
3 surface of the water, so to speak, right?

4 A. Yes.

5 Q. Okay. Other market participants can't see those other 99
6 contracts?

7 A. Correct.

8 Q. Let's say one visible order is filled. When that happens,
9 it's immediately replaced by another contract, right?

10 A. Yes.

11 Q. So the blue box would still show four contracts, right?

12 A. Well, an order for -- in your example.

13 Q. Yes, in my example.

14 A. When you placed a 100-lot iceberg showing 1, that quantity
15 would go to 4, but you would be the fourth contract. It's
16 executed in FIFO, first in/first out. So the first three
17 would have to trade out --

18 Q. Okay.

19 A. -- in order for you to get your one-lot fill. But once
20 that was filled, assuming nothing else, then it would
21 replenish showing 1.

22 Q. Okay. And so if that one contract is filled, then just
23 below the surface, there are then still 98 contracts left --

24 A. Correct.

25 Q. -- right?

1 And it would just keep going until the entire order
2 is filled or canceled?

3 A. Correct.

4 Q. And the CME allows traders to place iceberg orders, right?

5 A. Yes.

6 Q. Okay. Iceberg orders are real orders?

7 A. Yes.

8 Q. Okay. But the supply and demand created by the hidden
9 part of the order is not visible to the other market
10 participants, correct?

11 A. Correct.

12 Q. And essentially, an iceberg order is a way for a trader to
13 try to disguise what he or she is doing to get the best
14 execution, right?

15 A. Yes.

16 Q. And so in the hypothetical that we've been talking about
17 where the trader wants to buy 100 contracts, the trader isn't
18 sharing with the rest of the market what he actually wants to
19 do?

20 A. Correct.

21 Q. He wants to buy 100 contracts, right?

22 A. Yes.

23 Q. But he's only showing one at a time?

24 A. Yes.

25 Q. Okay. So we talked about icebergs, and you mentioned that

1 there are other types of orders that can be entered in the
2 CME, right, on direct examination?

3 A. Yes.

4 Q. Let's talk about another type of those orders which is
5 called a "stop" or a "stop-loss order." Okay?

6 A. Okay.

7 Q. A stop-loss order is an order that a trader might place to
8 have executed if the market moved to that specific price
9 really to avoid a further loss, right?

10 A. Yeah. Assuming they already had a position and that price
11 resulted in them losing money, yes, that would be a stop loss.
12 I mean, technically exchange, it's just a stop order.

13 Q. Okay. But you've heard them referred to as stop-loss
14 orders?

15 A. Yes. A customer might say "stop loss," yes.

16 Q. So looking at a TT ladder, let's say you're long from a
17 price of \$1289, meaning you bought contracts at that price and
18 you're holding on to them, right?

19 A. Okay.

20 Q. You might decide that if the price goes down and you start
21 to lose some of that notional value, you'd want to have an
22 order in place so the contracts will be sold before the price
23 goes down even further, right?

24 A. Yes.

25 Q. Okay. Does that make sense?

1 A. Yes.

2 Q. Okay. So you want to stop the loss, right?

3 A. Yes.

4 Q. Okay. And that may be why customers refer to them --

5 A. Yes.

6 Q. -- as stop-loss orders?

7 A. Yes.

8 Q. Okay. And if you want to protect against that scenario,
9 you could place a stop-loss order or a stop order on the sell
10 side, but you want to pick the price that you would not want
11 to go below, right?

12 A. Yes.

13 Q. Okay. So maybe here on this particular ladder, you would
14 have it entered at \$1288 even, which is the lowest level here,
15 right?

16 A. Yes.

17 Q. So if the price of the gold contract drops to \$1288,
18 Globex would execute the sell order for the trader at \$1288,
19 right?

20 A. Well, with a stop order, you have to give two prices.

21 Q. Okay.

22 A. So your first price is your trigger price, and that would
23 be the price that you want to try to sell at.

24 Q. Okay.

25 A. So once the market trades down to 1288 even, your trigger

1 would be hit. Then your second price is your limit price.

2 Q. Okay.

3 A. From 1288 even, how low am I willing to sell. So then
4 the --

5 Q. Zero. I'm not willing to go any lower.

6 A. Right.

7 Q. I want \$1288.

8 A. In that case, yeah, it would trade 1288. Your stop is
9 triggered, and you are offering at 1288. You might not get
10 filled, but you're offering there.

11 Q. You can hope, right?

12 A. Yes.

13 Q. Okay. And in this scenario, what we're talking about is
14 selling low, not high?

15 A. Yes.

16 Q. Okay. Stop-loss orders are not shown in the visible order
17 book, are they?

18 A. Stop orders are --

19 Q. Stop orders.

20 A. Okay.

21 Q. So other traders can't see how low the other trader is
22 willing to go, right?

23 A. Correct.

24 Q. Okay. And these stop orders are supply and demand that's
25 not shown on the visible order book, right?

1 A. Correct.

2 Q. Another type of order, fill or kill orders. Okay?

3 A. Yes.

4 Q. You're familiar with those?

5 A. Yes.

6 Q. So a fill or kill order is an order type where you enter a
7 price, let's say it's a buy order, and so you enter a bid at a
8 certain price. And you need to execute the entire quantity
9 where that order is eliminated or killed, right?

10 A. Correct.

11 Q. Okay. So a fill or kill order is a real order, right?

12 A. Yes.

13 Q. It's actual supply?

14 A. Yes.

15 Q. Or demand?

16 A. Or demand, yes.

17 Q. Okay. So looking at the TT ladder again, if I wanted to
18 buy five contracts at \$1289.10, so right there, if I wanted a
19 fill or kill order for five contracts at 1289.10, my order
20 would be killed as long as there are only two contracts for
21 sale at that price, right?

22 A. Correct. Fill or kill, you have to be able to execute the
23 full quantity.

24 Q. Okay. But let's say lurking underneath those two
25 contracts at 1289.10, there's an iceberg order for 10

1 contracts. My order would be filled because there are really
2 five contracts at that price, right?

3 A. Correct.

4 Q. Okay. Fill or kill orders aren't visible to traders
5 looking at their screens, right?

6 A. Correct.

7 Q. They don't show up on a TT ladder, correct?

8 A. Correct.

9 Q. So they're not seen on the visible order book, correct?

10 A. Correct.

11 Q. And again, these orders are supply and demand. That's not
12 on the visible order book, correct?

13 A. Right. The same as any new order that comes in, right.

14 Q. Any new real order, right?

15 A. Yeah.

16 Q. So the trader who is deciding whether or not to place an
17 order doesn't even know that it's there, right?

18 A. Well, because it's not -- just to be clear, it's not
19 resting there, right. So using a fill or kill is -- it's how
20 quickly you want it to expire, right. So again, me -- put it
21 this way. Me entering an order to buy five at \$1289.10,
22 before I enter it, nobody sees it. They don't know it's
23 there. If I enter a fill and kill at that price, it's the
24 same thing.

25 Q. It's executed, basically, or it's killed, right?

1 A. Correct. Correct.

2 Q. And that's real supply and demand?

3 A. Yes.

4 Q. Okay. And then there are fill and kill orders?

5 A. Yes.

6 Q. Which is different from fill or kill orders?

7 A. Yes.

8 Q. So a fill and kill order is another type of order, right?

9 A. Correct.

10 Q. Okay. Are these also called "immediate or cancel" orders?

11 A. So, yeah, both fill or kill and fill and kill are called
12 immediate or cancel, yeah.

13 Q. Okay. Okay. And so a fill and kill can get a partial
14 execution and then get canceled, right?

15 A. Yes.

16 Q. And these are real orders too, right?

17 A. Yes.

18 Q. And they're real supply and demand that's not on the
19 visible order book, correct?

20 A. Yes.

21 MS. CHURCH: Your Honor, may I have a moment?

22 THE COURT: You may.

23 MS. CHURCH: Nothing further, your Honor.

24 THE COURT: All right. Redirect?

25 MS. JENNINGS: Casey, could we pull up, what is it,

1 DX 57 we just had.

2 REDIRECT EXAMINATION

3 BY MS. JENNINGS:

4 Q. Mr. Scheerer, I know you spent a while on this chart, so I
5 just have a couple of last questions for you on the TT ladder.

6 A. Okay.

7 Q. If you look at the offer side, so the red side.

8 A. Yes.

9 Q. The total number of contracts, would you take my word that
10 the total number is 84?

11 A. That is displayed now?

12 Q. Yes.

13 A. Well, no. It's 2.

14 Q. I'm so sorry. I'm looking at the top ten, the whole order
15 book.

16 A. Oh, the sum of the prices?

17 Q. Yes.

18 A. I will take your word for it.

19 Q. The number of contracts. I jumped ahead. I mean, you
20 know, if you total up everything at 1289.10 all the way up to
21 the top.

22 A. 1290.

23 Q. Yes.

24 A. Is 84 contracts.

25 Q. 84 contracts.

1 A. Okay.

2 Q. And if you look at the blue side, the total number of bids
3 is 76.

4 A. Okay.

5 Q. So if somebody added 105 contracts to the best offer,
6 would that more than double the number of offers in the
7 market?

8 A. Number of contracts?

9 Q. I'm sorry. That's right. The number of contracts in the
10 market?

11 A. Of the displayed, yes.

12 Q. And would that shock the market?

13 MS. CHURCH: Objection. Foundation.

14 THE COURT: You can reformulate that question.

15 BY MS. JENNINGS:

16 Q. What effect would that have on the market?

17 A. If somebody entered 105 lot at 1289.10?

18 Q. Yes.

19 A. Well, it's hard to say. I mean, it could have multiple
20 effects, right, but it would certainly change the dynamic of
21 the current order book.

22 Q. Okay. And the same thing goes for the bid side. So the
23 number of bids in the market is 76.

24 A. Correct.

25 Q. And so if somebody placed 105 bids at the best bid, what

1 effect would that have on the market?

2 A. I mean, given that the largest single quantity at any
3 price level is a 19-lot, ten levels deep, if somebody placed a
4 105-lot at the top of the book, yes, that would indicate that
5 there's a -- someone is coming in to buy a lot of gold.

6 Q. And that would significantly change the supply and demand
7 in the market?

8 A. The perception of supply and demand, absolutely, yes.

9 MS. JENNINGS: Thank you.

10 One moment, your Honor.

11 No further questions. Thank you.

12 THE COURT: All right. Any recross?

13 MS. CHURCH: No, your Honor. Thank you.

14 THE COURT: Okay. All right. Mr. Scheerer, you are
15 excused.

16 (Witness excused.)

17 THE COURT: All right. Since we've intruded into the
18 lunch hour, we'll take our lunch break now. We'll go to 1:30
19 actually. Because I'm not going to see you for an entire
20 hour, I'm going to remind you to do no research into the case,
21 not the facts, the law, the lawyers, or anything else about
22 it.

23 Don't discuss the case, not even amongst yourselves.
24 Again, feel free to chat about whatever you'd like to talk
25 about in your personal lives, just not the case. If you

1 leave -- well, I'm sure you will. If you leave the floor,
2 remember to take the north bank of elevators.

3 And I'll remind every lawyer and litigant to take the
4 south bank of elevators.

5 See you at 1:30.

6 (Proceedings heard in open court. Jury out.)

7 THE COURT: Let's stay on the record. Okay. The
8 defense response to the "terrible ordeal"?

9 MS. MOYNE: Thank you, your Honor. Beyond the fact
10 that -- I mean, the evidence in the trial is going to talk
11 about the FBI's interview of Mr. Jordan and that, we'll
12 obviously be able to argue the inference that that was an
13 unpleasant and terrible ordeal. And the fact that an innocent
14 man has been charged is a terrible ordeal. But beyond that,
15 we don't intend to elicit sort of any of the personal toll
16 it's taken on Mr. Jordan.

17 THE COURT: Well, to say that "please end this
18 terrible ordeal" is, it's not drawing inferences just from the
19 circumstances of the statement which you are free to do to try
20 to undermine, you know, what was said or what the agent says
21 was said. But, yeah, to draw out or argue about the
22 prosecution's impact on the defendant is not permitted. All
23 right. So don't do that in closing.

24 MS. MOYNE: Understood.

25 THE COURT: All right. See you at 1:30.

1 (Recess from 12:13 p.m. to 1:30 p.m.)

2 * * * * *

3 C E R T I F I C A T E

4 I, Judith A. Walsh, do hereby certify that the
5 foregoing is a complete, true, and accurate transcript of the
6 proceedings had in the above-entitled case before the
7 Honorable EDMOND E. CHANG, one of the judges of said court, at
8 Chicago, Illinois, on December 1, 2022.

9

10 /s/ Judith A. Walsh, CSR, RDR, F/CRR

December 1, 2022

11 Official Court Reporter

12 United States District Court

13 Northern District of Illinois

14 Eastern Division

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IN THE UNITED STATES DISTRICT COURT
FOR THE NORTHERN DISTRICT OF ILLINOIS
EASTERN DIVISION

3 UNITED STATES OF AMERICA,)
4 Plaintiff,)
5 v.) No. 19 CR 00669-4
6 CHRISTOPHER JORDAN,) Chicago, Illinois
7 Defendant.) December 1, 2022
) 1:30 p.m.

VOLUME 2-B

TRANSCRIPT OF PROCEEDINGS - Jury Trial
BEFORE THE HONORABLE EDMOND E. CHANG, and a jury

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1 (Proceedings had in open court:)

2 THE COURT: All right. Please be seated.

3 That was beautifully choreographed, ladies and
4 gentlemen, and especially between Mr. Robbins and Mr. Jenkins
5 there. Just a little sprint there to fix that.

6 All right. Well done.

7 We are ready to resume the trial. The government may
8 call its next witness.

9 MR. SULLIVAN: The United States calls Mr. Alejandro
10 Silva.

11 (Witness sworn.)

12 THE COURT: You can remove your mask for the
13 testimony. Okay. Mr. Sullivan.

14 MR. SULLIVAN: Thank you, your Honor.

15 ALEJANDRO SILVA, DIRECT EXAMINATION
16 BY MR. SULLIVAN:

17 Q. Good afternoon, Mr. Silva. Could you please state and
18 spell your name for the record.

19 A. Yes. My name is Alejandro Silva, and that's
20 A-l-e-j-a-n-d-r-o, S-i-l-v-a.

21 Q. I think you may be able to move the microphone closer to
22 you if that's easier.

23 Mr. Silva, where do you work?

24 A. I work at Monument Economics Group.

25 Q. And what is Monument Economics Group?

1 A. It's a data analytics, data analysis and economics
2 consulting firm that studies a whole variety of industries.

3 Q. What is your position at Monument?

4 A. I have the title of vice president.

5 Q. And how long have you worked there?

6 A. I've been there since June 2018, so roughly four and a
7 half years.

8 Q. Okay. And just in general, what does your work at
9 Monument involve?

10 A. I oversee data analysis, big data projects, consulting
11 projects, a whole variety of different consulting engagements.

12 Q. Does that data work involve analyzing large data sets?

13 A. Yes, it does.

14 Q. Now, was Monument hired by the government to analyze large
15 data sets in connection with this case?

16 A. Yes.

17 Q. And how long has Monument been working on the case for the
18 government?

19 A. We have been working on the case for about three and a
20 half years, give or take.

21 Q. Are you the only person at Monument who works on the case?

22 A. No, I'm not. There's a team of four to six people that
23 have worked on this.

24 Q. And is Monument being paid for its work by the government?

25 A. Yes.

1 Q. So for this case, what data did Monument analyze?

2 A. We analyzed two types of data from the CME Group to
3 capture trading information.

4 Q. And the data from the CME Group, what products and time
5 periods did that cover?

6 A. It covers the time period for this case of 2009, 2010, and
7 the products are silver and gold futures contracts.

8 Q. So silver and gold futures contracts traded on the CME
9 Group exchange?

10 A. Traded on the CME Group exchange, yeah.

11 Q. And so this CME data, what's shown in this data?

12 A. So there are two types of data. One is called the Rapid
13 data, and I'll talk about it first.

14 The Rapid data shows all the different actions that I
15 guess traders are making in the CME exchange, in the exchange.
16 So if someone wants to buy an order of a silver contract and
17 someone wants to sell, someone wants to change that order, it
18 would tell you at a given moment in time, moment in time, what
19 a trader is doing, what they're trying to buy or sell, the
20 price they're trying to get, the number of orders they're
21 trying to purchase or so forth.

22 And then there's another type of data called the
23 Armada data which essentially synthesizes that information and
24 tells you at any given moment in time what are sort of the
25 best ten selling prices and the volume at that level and then

1 the best ten sort of buying or bid prices and the volumes of
2 contracts available at that level.

3 Q. Okay. So with these two types of CME data, can Monument
4 identify what a particular trader was doing at any given point
5 in time in the gold and silver futures contracts market in
6 2009, 2010?

7 A. Yes.

8 Q. Now, this CME trade data that Monument analyzed, is it a
9 large volume of data?

10 A. Yeah. This particular data for those two commodities and
11 in the 2009, 2010 period, it's roughly 356 gigabytes or
12 something.

13 Q. And when Monument first received the CME Group data, what
14 did it do with the data?

15 A. Well, we needed to process, organize, clean the data sort
16 of to be able to then sort of analyze it.

17 Q. And why process and organize the data?

18 A. Well, it comes in a variety of files. The format has
19 changed over time and how the CME data sort of stores it. So
20 in order to get all the data to work together, we needed to
21 process it, write a lot of software programs to handle that.

22 Q. Okay. And does Monument have any quality control
23 processes that it applies when it processes and imports the
24 data?

25 A. Yes, we do.

1 Q. And why do you have those?

2 A. Well, we need to ensure that all the work that we do is
3 accurate. Generally we want to make sure that all the data
4 that we look at is faithfully reflecting what's originally in
5 the data, you know, we don't have any mistakes.

6 Q. So in the CME trade data, did the government identify
7 certain episodes of trading activity for Monument to focus on?

8 A. Yes.

9 Q. And are these episodes snapshots in time of trading
10 activity for the defendant Christopher Jordan?

11 A. Yes.

12 Q. And did Monument create charts for the government that
13 summarized these episodes of trading activity?

14 A. Yes.

15 Q. And is the purpose and scope of your testimony today to
16 introduce these charts into evidence and explain them to the
17 jury?

18 A. Yes.

19 Q. And we'll walk through a couple of examples with the jury
20 to explain the charts?

21 A. Yes, we will.

22 Q. Now, have you been asked to offer any opinion on the
23 defendant's trading activity in this case?

24 A. No, I have not.

25 Q. Now, in the CME trade data, is there a way to identify the

1 trading activity from a specific trader?

2 A. Yes, it there is.

3 Q. And how does that work?

4 A. So the CME data has a field which is basically a column in
5 the data that is called Tag 50 which is essentially a user ID
6 data entry.

7 Q. Okay. So Mr. Silva, showing you on the screen in front of
8 you, we're going to pull up Government's Exhibit 86.

9 Have you seen this before?

10 A. I have.

11 Q. And if we maybe go to page 5.

12 And is this a stipulation between the parties that
13 includes information about Tag 50s?

14 A. It is.

15 MR. SULLIVAN: All right. Your Honor, at this time,
16 the government would move to admit Government's Exhibit 86.

17 THE COURT: Any objection?

18 MS. MOYNE: No.

19 THE COURT: It's allowed.

20 (Above-mentioned exhibit was received in evidence.)

21 MR. SULLIVAN: Great. It's on the screen.

22 And Casey, if we can zoom in on the second and third
23 paragraphs on page 5 of Government's Exhibit 86.

24 BY MR. SULLIVAN:

25 Q. Mr. Silva, can you please read the portion that's zoomed

1 out there on the screen?

2 A. Yes. "While working at JPMorgan, Christopher Jordan was
3 identified by the following Tag 50, CJORDAN. While working at
4 Credit Suisse, Christopher Jordan was identified by the
5 following Tag 50, CJORDAN4."

6 Q. So CJORDAN and CJORDAN4, those are Tag 50s?

7 A. Yes.

8 Q. Tag 50s used by Christopher Jordan to trade on the CME
9 markets?

10 A. Yes.

11 MR. SULLIVAN: All right. We can take down
12 Government's Exhibit 86, please.

13 BY MR. SULLIVAN:

14 Q. So Mr. Silva, in analyzing the CME trade data and creating
15 the charts of trading episodes, did you personally do all of
16 the work?

17 A. No, I did not.

18 Q. Okay. So other people worked with you on the team?

19 A. Yes.

20 Q. Now, the charts that we're going to look at and that you
21 and the team created, are they accurate?

22 A. Yes.

23 Q. Did you and the team have processes in place to ensure the
24 chart's accuracy?

25 A. Yes, we do.

1 Q. Okay. Let's get into a few of the charts.

2 So Mr. Silva, there should be a binder in front of
3 you if you see it there. If you look, there should be what's
4 marked as Government's Exhibit 75 and 76. Do you see those?

5 A. I do.

6 Q. Okay. And what's in Government's Exhibit 75 and 76?

7 A. Those are charts of the trading episodes of
8 Mr. Christopher Jordan.

9 Q. And how many episodes are there?

10 A. There are -- there are a total of 68 episodes.

11 Q. So across Government's Exhibit 75 and 76, there are 68
12 episodes?

13 A. Yes. That's correct, yes.

14 Q. Okay. And what is the time period covered by each of
15 those exhibits?

16 A. So Government's Exhibit 75 covers a time period of 2009,
17 and Government's Exhibit 76 covers a time period of 2010.

18 Q. Okay. And so Government's Exhibit 75 and 76, these are
19 the charts that Monument created from the CME trade data?

20 A. That's correct, yes.

21 Q. And do Government's Exhibit 75 and 76 accurately summarize
22 the trading episodes they represent?

23 A. Yes.

24 Q. So, for example, they accurately show when orders were
25 placed, canceled, modified, executed?

1 A. Yes.

2 Q. And do they accurately show the types of orders and the
3 market prices during each episode?

4 A. Yes.

5 MR. SULLIVAN: Your Honor, at this time, the
6 government would move to admit Government's Exhibit 75 and 76.

7 THE COURT: All right. Any further objections?

8 MS. MOYNE: No.

9 THE COURT: It's allowed.

10 MR. SULLIVAN: And request permission to publish.

11 THE COURT: You may.

12 MR. SULLIVAN: Thank you.

13 (Above-mentioned exhibit was received in evidence.)

14 BY MR. SULLIVAN:

15 Q. So, Mr. Silva, let's take a look at one of the charts.
16 I'm showing you page 76 of Government's Exhibit 75. On the
17 screen, what are we looking at here?

18 A. Okay. So this is a trading episode, trading episode
19 No. 25 from Mr. Jordan from his time -- Tag 50 CJORDAN from
20 his time at JPMorgan. It takes place on October 16, 2009, and
21 it's a purchase of -- well, it's in the silver futures
22 contracts market.

23 Q. So this is one of the summary charts of one of the 68
24 episodes that Monument created?

25 A. That's correct, yes.

1 Q. Now, did Monument create an animation to help walk through
2 this chart step by step?

3 A. We did.

4 Q. Okay. So let's take a look at that animation.

5 MR. SULLIVAN: It's just for the witness. If we
6 could pull up Government's Exhibit 81.

7 BY MR. SULLIVAN:

8 Q. Do you see that on your screen, Mr. Silva?

9 A. I do.

10 Q. Okay. And do you recognize it?

11 A. I do.

12 Q. And what is it?

13 A. This is a sort of animation of the same episode that we
14 were just looking at in the static sheet form.

15 MR. SULLIVAN: Your Honor, request permission to
16 publish and use Government's Exhibit 81 as a demonstrative.

17 THE COURT: Any objection?

18 MS. MOYNE: No, your Honor.

19 THE COURT: All right. It's allowed as a
20 demonstrative. Again, ladies and gentlemen, this is just to
21 demonstrate evidence. It's not the actual evidence in the
22 case.

23 BY MR. SULLIVAN:

24 Q. So Mr. Silva, let's walk through this animation.

25 So what do we see highlighted there at the top middle

1 of the screen?

2 A. Okay. So that identifies -- that's Mr. Jordan's Tag 50,
3 CJORDAN. So it shows that this episode involves Mr. Jordan's
4 trading.

5 Q. Okay. And what is there on the upper right-hand corner?

6 A. That is the episode number which, in this case, is No. 25.

7 Q. So each chart will have a number in the upper right-hand
8 corner?

9 A. That's correct.

10 Q. And what about the date of the episode?

11 A. The date of this particular episode is October 16, 2009.

12 Q. And I think you mentioned this, but which market is this
13 being traded in?

14 A. This is the silver futures market.

15 Q. Moving you all the way to the far left-hand side of the Y
16 axis, what do we see?

17 A. Those are price per ounces for silver futures contract.

18 Q. And the horizontal dotted lines, what do those represent?

19 A. Those represent price levels.

20 Q. Now, moving you to the bottom of the page, what just
21 appeared there on the X axis?

22 A. That is the time -- essentially it's a time, different
23 time periods.

24 Q. Okay. And what time zone is that time in?

25 A. That is in Central.

1 Q. And do you know why it's in Central Time?

2 A. Yeah, the CME data is maintained in Central Time Zone.

3 Q. And the time on the screen, on the chart moves from left
4 to right?

5 A. That's correct, yes.

6 Q. And now right below the time, what just appeared?

7 A. That is a legend that sort of explains, that is helpful to
8 sort of explain the different things we're going to see in
9 this chart.

10 Q. So it has different symbols that appear on the charts?

11 A. That's correct.

12 Q. We're going to talk through those symbols some more in
13 this animation?

14 A. Yes.

15 Q. All right. Can you explain what just appeared on the
16 screen?

17 A. Yeah. So it's two dash lines and a sort of blue-shaded
18 region between, and that shows the difference between the best
19 offer and the best bid price levels. The best offer is the
20 lowest price that a seller is willing to sell silver for which
21 in this case is \$17.27 per ounce. And the best -- bid price
22 is the highest price that a buyer of a silver futures contract
23 is willing to buy silver for in the visible order book and
24 that is, in this case, \$17.265 per ounce.

25 Q. Okay. I think you mentioned this a little bit, but what

1 is that blue shading that appears?

2 A. That is what's called the bid offer or bid-ask spread.

3 It's the difference between the best price that a seller is
4 willing -- is trying to get for silver and the best price that
5 a buyer is trying to purchase silver for in this case.

6 Q. The difference between the best bid and the best ask?

7 A. That's right.

8 Q. And a thin blue line just appeared there. What is that?

9 A. That is the mid price, the midpoint between the two
10 numbers which is a reasonable proxy for the marketplace.

11 Q. All right. So we saw a green circle appear on the screen.
12 What is that?

13 A. That shows -- as you can see from the legend, it's a
14 circle which shows that, in this case, Mr. Jordan placed an
15 order to buy 15 contracts of silvers futures.

16 Q. Okay. How do you know this is an order to buy?

17 A. It is -- it's on the buy side. So if you think about this
18 chart, it's showing on the -- on the sort of upper side shows
19 the sell side of the market, and then on the lower side, it
20 shows the buy side of the market. So when you show an order
21 placed there, it means that it's on the buy side of the
22 market.

23 Q. So on all the charts, if an order is below the blue
24 shading, it's on the buy side?

25 A. That's correct.

1 Q. Okay. And the converse is true, if it's above the blue
2 shading, it's an order on the sell side?

3 A. Yes.

4 Q. Now, there's a box there that says -- with the No. 1.
5 What does that information tell us?

6 A. Okay. So that is explaining that it's an iceberg order to
7 buy 15 contracts.

8 Q. Okay. Now, in general, in these charts that Monument
9 created, what are the green orders?

10 A. The green orders will indicate smaller orders relative to
11 other orders that we're going to see in the same chart.

12 Q. Okay. And the commissions says in order to buy 15
13 contracts by Mr. Jordan, where is the order to buy 15
14 contracts compared to the bid-ask spread?

15 A. It is at the -- well, it's at the bottom of the bid-ask
16 spread, so it means it's at the best bid price.

17 Q. And at the time you placed those -- that 15-lot order, if
18 you wanted to buy immediately, would you have had to pay a
19 higher or lower price?

20 A. A higher price.

21 Q. All right. Now, in box 1, there's the word "iceberg" with
22 some parentheses around it. What does that indicate?

23 A. So iceberg means that when Mr. Jordan places the order,
24 the number of contracts that he wishes to buy are now visible
25 in the order book, are now all visible in the order book.

1 Q. Okay. So this order to buy is for 15 contracts, right?

2 A. That's correct.

3 Q. So does the market see all 15 contracts?

4 A. It does not.

5 Q. Okay. It sees some portion but not the entire order?

6 A. That's correct, yes.

7 Q. Okay. And looking at the chart, how do you know this is
8 an iceberg order other than what's in box No. 1?

9 A. Looking at this chart specifically, well, the iceberg
10 order and then the parentheses around the 15 contract would
11 signify an iceberg order.

12 Q. So if there's a number without the parentheses, what does
13 that indicate?

14 A. It indicates that it's fully visible. It's not an iceberg
15 order.

16 Q. Now, you mentioned that the market doesn't see all 15
17 contracts because it's an iceberg order. Does this chart
18 indicate how much of the iceberg order is displayed to the
19 market?

20 A. No, it does not.

21 Q. Okay. And why not?

22 A. Well, the Rapid data -- this data comes from the Rapid
23 data and it did not track that information until 2013.

24 Q. So the data wasn't available?

25 A. That's right.

1 Q. So I think we know that the -- all 15 contracts wasn't
2 displayed to the market, but the exact quantity that was
3 displayed isn't in the data?

4 A. That's right.

5 Q. Okay. So moving on a little bit here.

6 I see a red circle in box No. 2. What does that
7 indicate?

8 A. So that indicates that Mr. Jordan placed an order to sell
9 105 contracts. And so that's -- a circle as we've said before
10 is an order placement. In this case, it's on the sell side of
11 the market, so it's an order to sell 105 contracts of silver
12 futures.

13 Q. Okay. And Mr. Silva, I skipped over this earlier, but in
14 both box 1 and box 2, there is a dollar figure in a
15 parentheses after the number of contracts. What does that
16 indicate?

17 A. So that represents the notional value of the underlying
18 asset. So, generally speaking, like in the first case, it
19 would show that, you know, Mr. Jordan is trying to buy at
20 1.294 million, 875 -- or \$1,294,875 of like physical silver.

21 Q. Okay.

22 A. And the other case is roughly \$9 million, to sell \$9
23 million of physical silver.

24 Q. So that is the physical silver underlying the futures
25 contracts?

1 A. Right.

2 Q. All right. Going back to box 2 and I want to direct you
3 to the second line there where it says "Orders are up to
4 60.3 percent of the visible order book." What does "visible
5 order book" mean?

6 A. So that is what I mentioned earlier. It comes from the
7 Armada data, and it shows that moment in time all the sort of
8 visible contracts that are there for sale; and at that moment
9 in time the 105 contracts that Mr. Jordan had represented 60
10 percent, 60.3 percent of all the contracts that are available,
11 you know, in the order book.

12 Q. So the defendant's order itself was almost two-thirds of
13 the entire worldwide visible order book on the sell side for
14 silver futures?

15 A. That's right.

16 Q. Okay. Moving along, there's some green triangles that
17 appear there. What do they represent?

18 A. So if you look at the legend below, they're sort of
19 upsidedown triangles, and that shows that the order was
20 filled, that Mr. Jordan's 15 contracts were -- like buy
21 contracts were -- somebody, you know, bought -- I guess he
22 bought them, so someone sold them to him at that moment.

23 Q. So in general, a triangle represents an order being
24 filled?

25 A. That's right.

1 Q. And depending on whether you're buying or selling, it's
2 pointing up or down?

3 A. That's right.

4 Q. And so here, it's pointing down which means what?

5 A. Which means that he bought those contracts.

6 Q. Okay. All right. Now, box No. 3 disappeared there. What
7 does that indicate?

8 A. That shows that -- indicates that Mr. Jordan bought 15
9 contracts while the sell order was still -- was active.

10 Q. And looking at the data, what does it mean when an order
11 is filled or executed? Like where did those 15 contracts come
12 from?

13 A. From a counterparty, somebody sort of like a willing
14 seller on the other side of the market.

15 Q. Okay. So Mr. Jordan is buying and someone else is selling
16 to him?

17 A. That's right.

18 Q. And this order to buy 15 contracts, was it filled before
19 or after Mr. Jordan placed the large order on the sell side?

20 A. It was filled after.

21 Q. All right. What do we see now on the page?

22 A. So there we see a circle with an X on it a little later in
23 time, and that represents an order cancellation.

24 Q. Okay. And focusing you just on the blue shading and the
25 thin blue line, what happens to them after the defendant

1 places his sell order in red?

2 A. So after the defendant places the sell order, the
3 blue-shaded region drops below which shows that the market --
4 so the best ask, the best bid prices both drop and the market
5 price decreases.

6 Q. Okay. So when the market price goes down like that in the
7 CME trade data that Monument analyzed, what does it show that
8 other traders in the market are doing?

9 A. That would usually mean either, you know, traders are
10 modifying their orders or sort of changing them downwards in
11 this case.

12 Q. All right. Box No. 4, what does that tell us?

13 A. That shows that Mr. Jordan cancels the 105-contract sell
14 order.

15 Q. Okay. So none of the contracts were filled?

16 A. That's correct.

17 Q. And after the defendant canceled that sell order, what
18 happens to the blue shading and the blue line?

19 A. It reverts back to where it was before.

20 Q. And what we see on the screen, how long did it last for?

21 A. It shows that this entire episode lasted approximately 3
22 seconds to 189 milliseconds, so 3.3 seconds.

23 Q. And directing you back to box No. 2 there, kind of in the
24 top middle, a third line just appeared. What does that tell
25 us?

1 A. That tells us that Mr. Jordan's sell order was active for
2 .936 seconds, so just a smidge under 1 second.

3 Q. So is another way to say .936 seconds, 936 milliseconds?

4 A. Yes.

5 Q. All right. And then moving back down to the bottom of the
6 chart, a blue box appeared. Can you tell me what the
7 information in there indicates?

8 A. Yeah. So that blue box is sort of a legend that
9 explains -- we just went over four steps, if you will -- how
10 much time passes between each of those steps. So it shows
11 that between the original placement of the buy order and the
12 placement of the 105 contracts sell order, 2.353 seconds
13 elapsed between the sell order and then the fillment of the
14 buy order. So between the sort of the 105 with the circle and
15 then the triangles just past it, .02 seconds elapsed, so 20
16 milliseconds. And then between when the orders were filled
17 and then the sell order was canceled, 0.89 seconds elapsed.

18 Q. Okay. All right. We can pull down Government's Exhibit
19 81.

20 Mr. Silva, let's pull up Government's Exhibit 75,
21 page 76, episode 25.

22 Do you see it on your screen, Mr. Silva?

23 A. Yes.

24 Q. Okay. And, again, what are we looking at?

25 A. Well, this is the sort of static version of the sort of

1 animation that we just walked through.

2 Q. And so Monument has created similar static charts like
3 this for other trading episodes in the 68, correct?

4 A. Yes.

5 Q. And do all of these other charts of the episodes have
6 generally the same annotations that we walked through in the
7 different boxes?

8 A. Yes.

9 Q. Let's move to page 77 of -- the next page, 77 of
10 Government's Exhibit 75. What are we looking at here?

11 A. Okay. This is what we're labeling episode 25A, and it's
12 basically the same episode which is in the sort of dashed
13 lines, and then we're looking at that, zooming out one minute
14 before the episode happened and then one minute after the
15 episode happened.

16 Q. And so there's 60 seconds on both sides of the episode
17 that we just looked at?

18 A. That's correct, yes.

19 Q. And is there, this 60 seconds, did Monument create these
20 for all of the 68 episodes?

21 A. Yes.

22 Q. And so just looking at this, this zoom out, what does it
23 show, if anything, about Mr. Jordan's trading activity in that
24 time period?

25 A. In this case, it shows that Mr. Jordan did not do any

1 trading in the silver futures contracts in the quantity
2 exchange over, you know, one minute before the episode and one
3 minute after.

4 Q. Okay. So if the defendant had any orders in the visible
5 order book during the time period 60 seconds before, 60
6 seconds after, that would appear on here?

7 A. Yes.

8 Q. Okay. And I think you said the dotted line box, that's
9 the episode that we just looked at on the page before?

10 A. That's right.

11 Q. And looking to the right of that dotted line box, what
12 happens to the market price after the episode?

13 A. After the episode, you see the market price increasing.

14 Q. Okay. And where does the market price move up to, what
15 price level compared to the price level where the defendant
16 had placed his 105-lot order to sell in red?

17 A. It moves higher.

18 Q. So the defendant sold it at a higher price?

19 A. Yes.

20 Q. Did he in the 60 seconds after the episode?

21 A. Excuse me?

22 Q. Did he in the 60 seconds after the --

23 MS. MOYNE: Objection to the last question.

24 THE COURT: Okay. And the basis?

25 MS. MOYNE: Foundation.

1 THE COURT: Okay. Overruled. The answer may stand.

2 Go ahead and pose the next question.

3 BY MR. SULLIVAN:

4 Q. Mr. Silva, after the market price moved higher, after the
5 episode, did the defendant replace his sell order that he had
6 canceled during the episode?

7 A. In this minute, he did not.

8 Q. Okay. Let's go to the next page, page 78 of Government's
9 Exhibit 75. What are we looking at here?

10 A. So this is the same episode in the sort of dashed box, and
11 now we're looking at 10 minutes, the 10 minutes in time
12 leading up to the episode and then ten minutes following the
13 episode.

14 Q. Okay. And like the 60 seconds zoom-outs, did Monument
15 create a 10-minute zoom-out, so ten minutes on each side of
16 the episode for all 68 episodes?

17 A. Yes.

18 Q. And looking at this 10-minute zoom-out, what do we see?

19 A. Well, we see Mr. Jordan's trading activity in the silver
20 futures market, you know, ten minutes before and ten minutes
21 after. Those are all sort of labeled and in gray.

22 Q. Okay. So we see some circles, we see some triangles; is
23 that right?

24 A. Yes.

25 Q. Okay. Why are they in gray and not in red or green?

1 A. Because those are not episodes that -- or these are not
2 trading instances or episodes that the government asked us to
3 sort of look into.

4 Q. Okay. And they're outside the original episode itself?

5 A. That's right.

6 Q. And Mr. Silva, I want to focus you on the upper right-hand
7 corner there, if you can zoom in.

8 Do you see 105 lot order to sell?

9 A. Yes.

10 Q. Is that opposite of 15 iceberg order?

11 A. Yes.

12 Q. So what do we see here happening on the buy and sell side?

13 A. We see that Mr. Jordan places a 15 order iceberg order, an
14 iceberg order for 15 contracts, and then a sell order for 105
15 contracts, fills the initial order and then cancels the sell
16 contract.

17 Q. Okay. Same pattern as we saw in the episode that we
18 discussed?

19 A. Yes.

20 Q. All right. Let's go to the next page, page 79 of
21 Government's Exhibit 75.

22 All right. A little bit different. What are we
23 looking at here?

24 A. This is sort of the same chart but now looking at an
25 additional box and information showing that Mr. Jordan traded

1 one contract with a Tag 50 Q1P. So this is what we're calling
2 counterparty charts.

3 Q. And counterparty, what does that mean?

4 A. Counterparty is the person -- so if I want to buy
5 something, someone has to sell it to me, so it's the other
6 person who I'm trading with, I would be trading with.

7 Q. So if you're buying and I'm selling, we're counterparties?

8 A. Counterparties, that's correct, yeah.

9 Q. And so in this chart, it says "Trades one contract with
10 Q1P." What is Q1P?

11 A. That is a Tag 50.

12 Q. And do you know who that Tag 50 is registered to?

13 A. Yes.

14 Q. Who?

15 A. Quantlab Financial.

16 Q. And so in this instance, the counterparties are the
17 defendant and Quantlab Financial?

18 A. That's correct.

19 Q. And so it says "Trades one contract with Q1P." So the
20 defendant is buying one contract from -- Quantlab is selling?

21 A. That's correct, yes.

22 Q. Now, more generally for these counterparty charts, did
23 Monument make charts showing information for all the
24 counterparties for each of the episodes?

25 A. No.

1 Q. What did it do?

2 A. We made I think -- I think it was roughly ten counterparty
3 charts for when Mr. Jordan traded with Quantlab.

4 Q. So the counterparty chart just shows trading with Quantlab
5 as a counterparty?

6 A. That's correct, yes.

7 Q. And that's the counterparty that the government expects
8 will come to court and testify at trial?

9 A. That's what I understand, yes.

10 Q. If we can pull down Government's Exhibit 75.

11 So Mr. Silva, the episode we just discussed was for
12 the defendant's trading in 2009. Let's turn to an example
13 from 2010. If we can pull up on the page Government's Exhibit
14 76, showing you page 10.

15 First, what episode number is this?

16 A. This is episode No. 49.

17 Q. And we talked about episode 25, episode 49. Does the CME
18 trade data separate the data into episodes?

19 A. It does not.

20 Q. Who categorized things into individual episodes?

21 A. The episodes were categorized by the government.

22 Q. Now, for this chart we're looking at on the screen, did
23 Monument also create an animation for this episode just like
24 the previous one we just looked at?

25 A. Yes, we did.

1 MR. SULLIVAN: Okay. If we can pull up on the screen
2 just for the witness Government Exhibit 82.

3 BY MR. SULLIVAN:

4 Q. Mr. Silva, do you see that on your screen?

5 A. I do.

6 Q. Okay. What are we looking at?

7 A. This is a PowerPoint animation of the same episode we were
8 just looking at.

9 Q. Okay.

10 MR. SULLIVAN: Your Honor, at this time, the
11 government requests permission to use Government's Exhibit 82
12 as a demonstrative and publish to the jury.

13 THE COURT: Any objection?

14 MS. MOYNE: No objection.

15 THE COURT: All right. It's allowed.

16 BY MR. SULLIVAN:

17 Q. Let's walk through this animation, Mr. Silva.

18 All right. Starting at the top middle again, what do
19 we see?

20 A. So this is the Tag 50 CJORDAN4 which identifies
21 Mr. Jordan's trading episodes during -- when he was at Credit
22 Suisse.

23 Q. Okay. And then moving to the upper right-hand corner.

24 A. That is the episode number for Mr. Jordan which, in this
25 case, is No. 49.

1 Q. Okay. Then moving back to the top middle, what's
2 highlighted there?

3 A. That is the date of the episode which in this case is
4 April 7, 2010.

5 Q. Okay. And what market are we in?

6 A. Silvers futures contracts.

7 Q. And just again, going all the way over to the left-hand
8 side, the Y axis, what do we see there?

9 A. Those are prices per ounce for, you know, silver futures
10 contract.

11 Q. Okay. And then the horizontal lines, what do they
12 represent?

13 A. Those represent price levels.

14 Q. Okay. And going down to the X axis at the bottom, what do
15 we see?

16 A. That is sort of a time grid from left to right.

17 Q. And what time zone again?

18 A. Central.

19 Q. And then below the time, what do we have there?

20 A. That is the same legend that we looked at before which
21 sort of explains all the sort of different things we're going
22 to see in the chart.

23 Q. Okay. Then like before now, what do we see in the chart?

24 A. Again, the shaded line showing just the difference between
25 the best offer and the best bid prices. And I should say, I

1 guess in this case, the best offer is 18.145 and the best bid
2 is 18.140.

3 Q. Okay. And the area between those two prices, what is that
4 referred to as?

5 A. That is the bid-offer spread.

6 Q. Okay. And remind the jury, this thin blue line, what is
7 that?

8 A. That is the mid price between the bid-offer spread.

9 Q. Okay. All right. What do we see here in box 1?

10 A. Here we see that Mr. Jordan places an iceberg order to buy
11 11 contracts of silver futures.

12 Q. And again, there's a green circle there. What does that
13 represent?

14 A. The green circle represents that it's a smaller order
15 relative to other orders we're going to see in this chart.

16 Q. And I think -- is this an order on the buy side or the
17 sell side?

18 A. It's an order on the buy side.

19 Q. And how do you know that?

20 A. I know that because that is below the sort of mid price.

21 Q. Okay. Now, these green orders, I think you said they're
22 maybe smaller in size. Smaller compared to what?

23 A. To the larger orders that we're also going to see in the
24 chart.

25 Q. Okay. What color are those orders in?

1 A. Those are in red.

2 Q. Again, this number 11 has a parentheses around the number.
3 What does that indicate?

4 A. So that indicates that it's an iceberg order.

5 Q. So, again, the market doesn't see all 11 contracts to buy
6 in this example?

7 A. That's correct.

8 Q. Whoops. Excuse me.

9 All right. Moving to the next step, box No. 2, what
10 does that tell us?

11 A. That shows that Mr. Jordan placed an order to sell 101
12 contracts for a notional value of \$9,163,225.

13 Q. And is this 101 lot order an iceberg or not an iceberg?

14 A. It is not an iceberg.

15 Q. And how do you know that?

16 A. There's no parentheses around the 101.

17 Q. And going to box 2, the second line, what does that mean?

18 A. That shows that this order for 101 contracts represents,
19 you know, 34.6 percent of the orders that are in the visible
20 order book.

21 Q. And now some triangles appeared. What do those represent
22 again?

23 A. Those represent the filling of an order. In this case,
24 that the contracts, the 11 contracts were -- that Mr. Jordan
25 was able to buy the 11 contracts.

1 Q. So the defendant was able to fill his entire 11 lot order?

2 A. That's right.

3 Q. And was that 11 lot order filled before or after he placed
4 his 101 lot order on the sell side of the market?

5 A. It was filled after.

6 Q. All right. And then this circle with an X through it,
7 what does that represent?

8 A. That represented an order cancellation.

9 Q. And focusing on the blue shading and the thin blue line,
10 what happens to those after the defendant places his 101 lot
11 sell order in red?

12 A. Those decrease.

13 Q. And so what do those indicate again?

14 A. So the best bid and ask, so the sort of prices that in
15 this case the buyers and sellers are trying to get. So it
16 shows the market price decreasing.

17 Q. Okay. And which direction did the market price go
18 compared to the defendant's iceberg order?

19 A. So the best -- the best ask went down to the -- to the
20 sort of price level of the buy order that had been placed, and
21 then the best bid, so like the buying one went below. So the
22 market price went below, I suppose.

23 Q. And box No. 4, what does that tell us?

24 A. Box No. 4 shows that the 101 sell order was canceled.

25 Q. Okay. So none of those contracts were filled?

1 A. That's correct.

2 Q. And then, again, pointing you back to the blue shading and
3 the thin blue line, what happens to the market price after the
4 defendant cancels his sell order in red?

5 A. It goes back up.

6 Q. And back up to what level compared to immediately before
7 he placed his 100 lot sell order?

8 A. That's correct, yes.

9 Q. And so these sort of boxes, 1, 2, 3, 4, are they arranged
10 in any sort of order?

11 A. Yeah, they're sort of chronologically tracking the
12 sequence of events.

13 Q. And this episode, how long did this episode last?

14 A. 2 seconds, 963 milliseconds, so just a smidge under 3
15 seconds.

16 Q. And then going back to box No. 2, that third line there,
17 what does that tell us?

18 A. It tells us that the sell order was active for 1 second,
19 99 milliseconds, so just a smidge over 1 second until it was
20 canceled.

21 Q. And then the blue box appearing there in the bottom
22 right-hand corner, can you just summarize what that
23 information tells us?

24 A. Yeah. So that tells you how much time elapsed between
25 these four, if you look at these boxes, 1, 2, 3, and 4. So it

1 shows that between when Mr. Jordan placed an iceberg order to
2 buy 11 contracts and when he placed an order to sell 101
3 contracts, so it's steps 1 and 2, 1.864 seconds elapsed; and
4 then between steps 2 and 3, so from the placement of the sell
5 order to the fulfillment of the buying of the 11 contracts,
6 .019 seconds elapsed; and then from that moment from once that
7 order was filled to when the order was -- the sell order was
8 canceled, 1 second, 63 milliseconds elapsed.

9 Q. Okay. We can pull down Government's Exhibit 82.

10 MR. SULLIVAN: Ms. Burn, if you can pull up
11 Government's Exhibit 76, page 10, episode 49, please.

12 BY MR. SULLIVAN:

13 Q. Again, Mr. Silva, quickly, what are we looking at here?

14 A. So this is the -- the static version of the sort of
15 animation that we were just looking at.

16 Q. Okay. Let's go to the next page of Government's Exhibit
17 76, so page 11. What do we see here?

18 A. This is a zoom-out chart. So it's just like before. We
19 see that sort of dash box indicating the episode and then
20 we're looking at one minute before the episode and one minute
21 after the episode of Mr. Jordan's trading activity.

22 Q. Okay. And do you see -- so the dotted line box, see just
23 to the left of it, it says 2X1. Do you see that?

24 A. Yes.

25 Q. What does that mean?

1 A. That means that Mr. Jordan placed two different orders for
2 one contract and filled them.

3 Q. And in addition to those two orders, are there any other
4 orders that occurred in the 60 seconds before the episode?

5 A. Yes, there was -- if you go almost all the way to the left
6 side of the chart, there's a buy order for 11 contracts.

7 Q. Okay. So other than those two orders, any other trading
8 by the defendant in the 60 seconds before or after the
9 episode?

10 A. No.

11 Q. All right. Let's go to page 12 of Government's Exhibit
12 76, please. What do we see here?

13 A. So this is another zoom-out chart. Now, we're looking at
14 ten minutes before the episode 49 and 10 minutes after the
15 episode 49.

16 Q. And, again, the dotted line box, is that the original
17 episode we looked at?

18 A. That's correct, yes.

19 Q. And the grayed out orders, can you just explain again why
20 they are in the color gray?

21 A. Because those are not the episodes the government asked us
22 to look into.

23 Q. Not part of the episode?

24 A. That's correct.

25 Q. Okay. Pull down Government's Exhibit 76, please.

1 So Mr. Silva, just to recap, we've looked at two
2 examples of the defendant's trading episodes; is that right?

3 A. Yes.

4 Q. And in each episode, there are orders in green?

5 A. Yes.

6 Q. Okay. And what were the green orders?

7 A. Those are the sort of smaller orders.

8 Q. And what happens to the green orders in both episodes?

9 A. They are filled.

10 Q. Okay. Now, in both episodes, there are orders in red as
11 well, correct?

12 A. That's correct.

13 Q. And what were those?

14 A. Those are the large orders.

15 Q. Okay. And we talked a little bit about iceberg. So were
16 the green orders icebergs or not icebergs?

17 A. In this case, the green orders were icebergs.

18 Q. Okay. And what about the red orders?

19 A. They were not icebergs.

20 Q. And what happened to the red orders in both episodes?

21 A. In these episodes, they were canceled.

22 Q. Were any of the contracts in either of the red orders
23 filled?

24 A. They were not.

25 Q. Okay. Now, in the charts that Monument created, do they

1 show every single order placed by every other trader in the
2 market during the given time period of an episode?

3 A. They do not.

4 Q. Okay. So could you have shown more information on the
5 charts?

6 A. Yes.

7 Q. Could you have shown all the orders by all other traders
8 in the market at the time?

9 A. Yes.

10 Q. Okay. If you did that, would it have been easier or more
11 difficult to see what the defendant was doing during a given
12 episode?

13 A. It would have been more difficult.

14 Q. And so what was the purpose of these charts related to the
15 defendant's trading?

16 MS. MOYNE: Objection.

17 THE COURT: Okay. Overruled.

18 Go ahead and answer.

19 THE WITNESS: Well, I think the purpose of the charts
20 were to show Mr. Jordan's trading and these episodes.

21 THE COURT: All right. The answer can stand.

22 BY MR. SULLIVAN:

23 Q. Mr. Silva, moving on a little bit, there should be a
24 binder in front of you. If you look to the front flap, there
25 should be two discs. Do you see those? One of them should be

1 marked Government's Exhibit 79. Do you see that?

2 A. I do.

3 Q. Okay. Have you reviewed this disc before court today?

4 A. I have.

5 Q. And what's on the disc?

6 A. Government's Exhibit 79 shows Rapid data extracts for all
7 the 68 episodes.

8 Q. And how do you know that?

9 A. Because I've reviewed them and I initialized the disc.

10 Q. Reviewed the data on the disc and then initialed it?

11 A. I'm sorry. That's correct.

12 Q. So Government's Exhibit 79, this is excerpts of CME trade
13 data for all the various episodes, the 68 episodes in
14 Government's Exhibit 75 and 76?

15 A. That's right.

16 MR. SULLIVAN: Your Honor, at this time, the
17 government would move to admit Government's Exhibit 79.

18 THE COURT: Any objection?

19 MS. MOYNE: No, your Honor.

20 THE COURT: It's allowed.

21 (Above-mentioned exhibit was received in evidence.)

22 BY MR. SULLIVAN:

23 Q. Mr. Silva, again, the front flap of the binder, directing
24 you to a disc, Government Exhibit 80. Have you reviewed this
25 disc before?

1 A. I have.

2 Q. And what's on that disc?

3 A. That shows the -- what we were looking at in the chart C,
4 the counterpart -- the sort of raw data that underlined the
5 counterparty episode sort of charts.

6 Q. Okay. And so we looked at one counterparty chart. These
7 excerpts of the CME trade data are for all the counterparty
8 charts that Monument created?

9 A. Yes.

10 Q. And do these excerpts contain the trading of both the
11 defendant as well as the counterparty Quantlab Financial?

12 A. That's correct, yes.

13 MR. SULLIVAN: Your Honor, at this time, the
14 government would move to admit Government's Exhibit 80.

15 THE COURT: Any objection?

16 MS. MOYNE: No objection.

17 THE COURT: 80 is in.

18 (Above-mentioned exhibit was received in evidence.)

19 BY MR. SULLIVAN:

20 Q. So Mr. Silva, for all the episodes we've discussed, what
21 is the time period generally covered by them?

22 A. 2009, 2010.

23 Q. And when we see one of these specific trading episodes
24 that Monument created, is that all of the defendant's trading
25 on a particular trading day?

1 A. No.

2 Q. Okay. In fact, you made zoom-outs of 60 seconds and 10
3 minutes; is that right?

4 A. That's correct.

5 Q. Is it possible that the defendant could have traded even
6 before the zoom-outs that you created?

7 A. Yes.

8 Q. Okay. Mr. Silva, whether the chart shows an episode,
9 whether it shows the 60-second zoom-out or shows the 10-minute
10 zoom-out of the defendant's trading, are all the charts
11 accurate?

12 A. Yes.

13 MR. SULLIVAN: No further questions.

14 THE COURT: All right. Cross-examination.

15 MS. MOYNE: Your Honor, if I may approach?

16 THE COURT: Sure.

17 ALEJANDRO SILVA, CROSS-EXAMINATION

18 BY MS. MOYNE:

19 Q. Good afternoon, Mr. Silva.

20 A. Hi.

21 Q. My name is Parvin Moyne, and I'm one of the attorneys who
22 represents Christopher Jordan. You and I have never met
23 before, correct?

24 A. That's correct, yes.

25 Q. Chris is sitting in the courtroom today. You reviewed

1 some of Chris' trading data, correct?

2 A. I have, yes.

3 Q. But you don't know Chris personally?

4 A. I do not.

5 Q. You never met him?

6 A. No.

7 Q. In court today is the first time you've ever seen him?

8 A. Yes.

9 Q. And Mr. Silva, you are not --

10 A. I don't even know who he is and never --

11 Q. Fair enough. There he is.

12 Mr. Silva, you are not a trader, correct?

13 A. I am not, no.

14 Q. And you were not a trader in 2008, 2009, and 2010?

15 A. Yes, that's correct, I'm not a trader.

16 Q. And you've never been a trader?

17 A. Never been a trader.

18 Q. Okay. You don't work for the CME, the Chicago Mercantile
19 Exchange, correct?

20 A. That's correct.

21 Q. You've never worked for the CME?

22 A. Yes, I've never worked with the CME, for, with, yeah.

23 Q. And you've never traded on one of the CME's exchanges?

24 A. I have not.

25 Q. And you are not offering any opinion about the CME's

1 rules, correct?

2 A. No.

3 Q. Okay. And you don't work for JPMorgan either?

4 A. I do not.

5 Q. You've never worked for JPMorgan?

6 A. Never.

7 Q. And you've never worked for Credit Suisse?

8 A. Never.

9 Q. And so you aren't offering any opinions about the
10 compliance policies for JPMorgan or Credit Suisse?

11 A. That's correct.

12 Q. You also do not work for the Department of Justice,
13 correct?

14 A. That's correct.

15 Q. And you don't work for the FBI?

16 A. Um-hmm.

17 Q. You work for a private company called Monument Economics
18 Group?

19 A. That's right.

20 Q. The Department of Justice hired Monument Economics Group
21 to work on this matter, correct?

22 A. Yes.

23 Q. And your work on this matter was to create the charts in
24 Government's Exhibit 75 and 76?

25 A. That's right, yes.

1 Q. And you worked with a team to create those charts?

2 A. Yes.

3 Q. And the Department of Justice is paying Monument Economics
4 Group for its work on this case?

5 A. That's right.

6 Q. So your team created the charts in Government's Exhibit 75
7 and 76?

8 A. Yes.

9 Q. And you created the charts based on the data that you
10 received from the CME?

11 A. That's correct.

12 Q. And it's your understanding that the CME is a private
13 company that operates different exchanges for trading futures
14 and options?

15 A. Yes, I do understand that.

16 Q. Is it your understanding that the CME maintains data for
17 past trading activity on its exchanges?

18 MR. SULLIVAN: Objection, your Honor, scope.

19 THE COURT: Okay. Overruled. You can answer it.

20 THE WITNESS: Well, I mean, I looked at the data, so
21 I sort of -- yes.

22 BY MS. MOYNE:

23 Q. You have no firsthand knowledge of the trading activity
24 you were asked to review, correct?

25 A. Yes, that's correct.

1 Q. Okay. And so you're relying on what's in the data?

2 A. That's correct.

3 Q. And in creating the government's charts, you reviewed
4 Rapid data from the CME?

5 A. Rapid and Armada data, yes.

6 Q. Let's do them one at a time. So let's talk about Rapid
7 data first. That includes all orders that were placed on the
8 CME's exchange?

9 A. Yes.

10 Q. And it includes all orders whether or not the orders were
11 executed or canceled, correct?

12 A. Yeah, or modified or filled, yes. Yeah.

13 Q. And was the Rapid data provided in massive data files?

14 A. Yes.

15 Q. And just to give the jury some sense of the sort of volume
16 of the data, is it fair to say -- first of all, is each data
17 file like a massive spreadsheet with rows and columns and a
18 lot of cells?

19 A. Yeah, you can think of it that way. Yes.

20 Q. Okay. And then for each row, there are a lot of columns
21 with data in the columns?

22 A. That's correct, yes.

23 Q. And it's extremely detailed, the CME Rapid data?

24 A. It depends in relation to what, but I would say, yeah,
25 it's fairly -- I mean, it's more vertical, if you will,

1 there's more time -- like the frequency in time, but, yes,
2 there's many, many columns in the data.

3 Q. And many rows, millions of rows?

4 A. Sure, many millions.

5 Q. And you can see every buy order placed by a trader?

6 A. Right.

7 Q. You can see every sell order?

8 A. Right.

9 Q. You can see every modification?

10 A. Yes.

11 Q. Every cancellation?

12 A. Yeah, you should be able to. Yes.

13 Q. And every execution?

14 A. That's right.

15 Q. And then in addition to the Rapid data, as you mentioned,
16 you also reviewed the Armada data --

17 A. That's correct.

18 Q. -- to create the charts?

19 A. That's correct.

20 Q. Okay. And that Armada data includes information on the
21 different levels of orders in the order book at any moment in
22 time?

23 A. That's right.

24 Q. And is the Armada data also in massive data files?

25 A. Yes.

1 Q. And similar to the Rapid data, if we think of it like a
2 spreadsheet, millions of rows and many columns?

3 A. That's correct, yes.

4 Q. Besides the Rapid data and the Armada data, did you review
5 any other data?

6 A. Not for this project.

7 Q. And is it your understanding that the CME Rapid data and
8 Armada data includes a lot of information that was not visible
9 to traders in realtime?

10 A. So for the Rapid data, probably that seems right, since we
11 talked about iceberg orders, so those wouldn't be fully
12 visible. I think for the Armada data, it's the visible order
13 book, so I would assume that's all data that's visible and
14 that's how I understand the data to be.

15 Q. Does the CME data, for example, include identifying
16 information for who placed the order, the Tag 50?

17 A. Does the CME data? Yes, it does.

18 Q. And that information, the information on who placed a
19 particular order was not visible to traders in realtime,
20 correct?

21 MR. SULLIVAN: Objection, foundation.

22 THE COURT: Only if you know the answer.

23 THE WITNESS: I don't know the answer.

24 BY MS. MOYNE:

25 Q. Okay. Do you have a general understanding that trading on

1 the CME is anonymous, or do you not know?

2 A. I actually don't know that.

3 Q. Okay. Now, you did mention that the CME data contains
4 information on iceberg orders, right?

5 A. That's right.

6 Q. And so you understand that the full quantity for an
7 iceberg order is not visible to market participants in
8 realtime?

9 A. Right.

10 Q. Are you familiar with an order type called "fill or kill"?

11 A. I'm trying to remember if I saw that in the data
12 dictionary. I don't think that's something I looked at in
13 preparing these charts.

14 Q. So do you have any understanding that fill or kill orders
15 are not visible to market participants in realtime?

16 A. Either way, I don't think I know that.

17 Q. So let's turn to cancellations.

18 The CME data includes a lot of orders that were
19 canceled, correct?

20 A. It includes orders that are canceled, yes.

21 Q. And is it fair to say the vast majority of orders in the
22 CME data that you reviewed were canceled?

23 A. The vast majority of orders I reviewed were canceled? No,
24 I don't think it is fair to say that. I don't think I've
25 analyzed that question in any way, but I mean just

1 spot-checking the charts, I don't think it's -- you know.

2 Q. Did you do any analysis to determine the market-wide
3 cancellation rate for orders?

4 A. No. You know, we prepared the charts. That's sort of
5 outside the scope of our analysis.

6 Q. So the government did not ask you to do that?

7 A. The government did not ask us to do that.

8 Q. Okay. And did you do any analysis to determine the
9 cancellation -- excuse me. Let me start over.

10 Did you do any analysis to determine the cancellation
11 rate for Chris Jordan's orders in 2008, 2009, and 2010?

12 A. We were not asked to perform that analysis, so I did not
13 do that.

14 Q. So let's go back to the analysis you did perform.

15 You created the charts in Government's Exhibit 75 and
16 76, correct?

17 A. That's correct.

18 Q. And those charts relate to 68 trading sequences?

19 A. Yes, that's correct.

20 Q. And the government selected the 68 trading sequences?

21 A. The government selected the episodes, yes.

22 Q. You had no role in selecting the 68 trading sequences?

23 A. No role whatsoever.

24 Q. Do you know how the government selected or chose the 68
25 trading sequences?

1 A. I do not.

2 Q. The government did not tell you how they selected the 68
3 trading sequences?

4 A. The government did not.

5 Q. Did you ask?

6 A. No.

7 Q. And did you conduct any investigation or analysis of
8 Chris' trading other than making the charts for the 68 trading
9 sequences and the demonstratives?

10 A. No, I did not.

11 Q. Okay. So let's turn to the charts that you and your team
12 prepared. And if we could begin first with the chart, the
13 first chart in Government Exhibit 75.

14 MS. MOYNE: And with the Court's permission, we'll
15 publish it and I'll ask Mr. White to pull up the first chart.
16 I'm going to move because my eyesight is bad.

17 BY MS. MOYNE:

18 Q. Okay. So just to get us oriented, do you see it on your
19 screen?

20 A. Yes.

21 Q. Okay. Great.

22 This chart depicts a trading sequence on September
23 30th, 2009, correct?

24 A. That's correct.

25 Q. And the product is silver futures?

1 A. That's correct.

2 Q. And in the upper right corner, the chart is labeled No. 1.
3 Is that the first chronologically of the 68 trading sequences
4 you reviewed?

5 A. Yes.

6 Q. And as you went over with Mr. Sullivan, the bottom axis
7 running horizontally across the page includes time stamps,
8 correct?

9 A. That's correct.

10 Q. And those are in Chicago time?

11 A. Yes, Central Time Zone.

12 Q. And the time in New York where Chris was trading would
13 have been one hour later, correct?

14 A. Yes.

15 Q. And then the vertical axis includes prices per ounce for
16 silver, correct?

17 A. That's correct.

18 Q. And on this graph, the lowest price listed on the axis for
19 this chart is \$16.43 and a half cents, correct?

20 A. Yeah, that is the lowest sort of number in the chart.

21 Q. And then each price increment on the axis moves up by half
22 a cent?

23 A. That's correct.

24 Q. And that's half a penny?

25 A. Yes.

1 Q. And so the prices on the vertical axis move up by half a
2 penny from \$16.43 and a half cents to \$16.44 to \$16.45 and a
3 half cents and so on?

4 A. Right.

5 Q. And are you aware that at this time period for silver
6 futures contracts on the CME, traders had to place orders by
7 the half cent, so a trader could not quote a price between
8 these ticks for, say, \$16.44 and a quarter cent?

9 A. Yeah, I understand, I think that's the tick marks, yeah,
10 are half cents. Yeah, so that's the iteration.

11 Q. Okay. This chart includes a dark blue line that runs
12 across. Do you see that?

13 A. Yeah.

14 Q. And that's the mid market price in the middle between the
15 best bid to buy and the best offer to sell at any given point
16 in time, correct?

17 A. That's correct.

18 Q. Okay. And then the later blue-shaded area that also runs
19 across the page, that is the bid-offer spread?

20 A. That's right.

21 Q. And so the shaded area shows a space in between the best
22 bid and the best offer at a given time?

23 A. That's correct.

24 Q. And so, for example, at 10:56 a.m. even, the best bid
25 price was \$16.44 and a half cents, correct?

1 A. Um-hmm. Yes.

2 Q. And that means that the highest price quoted by someone
3 looking to buy a silver futures contract was \$16.44 and a half
4 cents per ounce?

5 A. That's correct, yes.

6 Q. And at the same moment in time, 10:56 even, the best offer
7 price was \$16.45, half a cent higher, correct?

8 A. That's correct.

9 Q. And that means the lowest price someone looking to sell a
10 silver futures contract was quoting was \$16.45 per ounce?

11 A. That's correct.

12 Q. So at 10:56 a.m., the bid-offer spread, the difference
13 between the best bid and the best offer was half a cent,
14 correct?

15 A. That's right.

16 Q. And then the mid market price at that time was \$16.44 and
17 three-quarter cents, correct?

18 A. That's right.

19 Q. Which is halfway between \$16.44 and a half cents and
20 \$16.45?

21 A. That's right.

22 Q. And so even though this chart shows a mid market price at
23 \$16.44 and three-quarter cents, it was not possible to
24 actually buy or sell a silver futures contract on the CME at
25 that price, correct?

1 A. Right, given the half a cent we just discussed.

2 Q. Right. Given that a trader had to quote a price by the
3 half cent, correct? Yeah.

4 I'd now like to ask you about some of the boxes shown
5 on this chart. So let's first talk about the colors.

6 A. Okay.

7 Q. There are two green boxes and two red boxes.

8 A. Um-hmm. Yes.

9 Q. And you see, you used the color green to indicate a small
10 order, correct?

11 A. Yeah, relative to the red ones. They're relational, if
12 you will.

13 Q. Okay. And you used the color red to indicate the large
14 orders, correct?

15 A. Yes.

16 Q. Okay. And the government asked you to use the colors red
17 and green, correct?

18 A. That's correct.

19 Q. The CME data does not color code for different order
20 sizes, correct?

21 A. That's correct.

22 Q. And then directing your attention to the green box in the
23 lower left corner with the No. 1, there is a green arrow
24 pointing at a green dot with the No. 5. Do you see that?

25 A. I do.

1 Q. And the government decided that 5 was a small order,
2 correct?

3 A. Yeah, I mean, they were labeled small orders, yes. Yes.

4 Q. And in this case, the small order is not iceberged,
5 correct?

6 A. That's correct.

7 Q. And, again, the CME data doesn't include labels small or
8 large with respect to orders, correct?

9 A. That's correct.

10 Q. Okay. And so looking at the information in box No. 1,
11 what this means is that Chris placed an order to buy 5 silver
12 futures contracts at a price of \$16.44 and a half cents,
13 correct?

14 A. That's correct.

15 Q. That was a real order?

16 A. That's the order in the data, yes.

17 Q. The order can be found in the giant data files of Rapid
18 data that you reviewed?

19 A. That's correct. That's where it came from.

20 Q. Okay. And you know that the order's in the data files
21 because you found it and you put it on the chart, correct?

22 A. That's right.

23 Q. Now, Chris placed the green order to buy 5 silver futures
24 contracts at the best bid price in the market at that time,
25 correct?

1 A. I'm sorry. Can you repeat the question?

2 Q. Sure.

3 Chris placed the green order to buy 5 silver futures
4 contracts at the best bid price in the market at that time?

5 A. Yes, that's correct.

6 Q. And when buying the best bid price is the highest price,
7 correct?

8 A. That's right.

9 Q. And in this instance, when Chris placed that green order
10 to buy 5 silver futures contracts, he actually created a new
11 best bid price, correct?

12 A. Yeah, I mean, I don't know who all is showing up,
13 obviously, but certainly if you look at what's happening just
14 a smidge before, that's what appears to be happening.

15 Q. Okay. Right before, I mean, it is hard to see on the
16 screen, and I should have told you the binder in front of you
17 also has hard copies which might be easier to see.

18 A. Okay.

19 Q. But right before his order, the best -- if you take a
20 moment, there should be a 75 and then chart 1.

21 A. Yep. I see it.

22 Q. Okay. If you look closely on the screen or if you look in
23 the binder, it might be easier, you can sort of see the
24 shading, and right before Chris' order, the best bid price was
25 half a cent lower at \$16.44. Do you see that?

1 A. I do.

2 Q. Okay. And so Chris improved the price on the bid side by
3 half a cent to \$16.44 and a half cents?

4 A. Yeah, it appears that after Mr. Jordan's order, the best
5 bid price becomes 16.445.

6 Q. And then directing your attention to the red box on the
7 top with the No. 2, there's a red arrow pointing at a red dot
8 with the number 105, correct?

9 A. That's correct.

10 Q. Okay. And the government decided that this should be in
11 red and is a large order, correct?

12 A. Yeah, I think that's correct.

13 Q. And what this box indicates is that Chris placed an order
14 to sell 105 silver futures contracts at a price of \$16.45,
15 correct?

16 A. Yes, that's correct.

17 Q. And that was a real order, correct?

18 A. Yeah, it's an order that appeared in the data for a sell
19 order for 105 contracts in the data.

20 Q. Okay. And because it appeared in the data, you were able
21 to find it and you were able to add it to your chart, right?

22 A. That's correct.

23 Q. And focusing back on the red order to sell 105 contracts,
24 Chris placed the red order at the best offer price in the
25 market at this time, correct?

1 A. That's correct.

2 Q. And it's hard to see, but we can tell that because it's at
3 the top of the shaded box, correct?

4 A. That's right.

5 Q. Okay. And that means that there were no offers to sell
6 that were better at this time, correct?

7 A. Right. Yeah, there are no offers to sell that were
8 better. I guess there were others at that level, but none
9 that were better.

10 Q. And a better offer price is the lower offer price?

11 A. That's right.

12 Q. Okay. So in sequence No. 1, we've established that Chris
13 placed the red order at the top of the book meaning at the
14 best offer price, correct?

15 A. Yes.

16 Q. And you're familiar with the phrase "top of the book"?

17 A. No, but I kind of -- I think I can intuit what it means.

18 If you want to define it, I'm happy to...

19 Q. If I use the "top of the book" to mean the best offer
20 price on the offer side and the best bid price on the bid
21 side, does that make sense to you?

22 A. Yeah.

23 Q. Okay. And so when you prepared the charts for the 68
24 trading sequences, did you notice that in almost all of them
25 Chris placed the red order at the top of the book?

1 A. I would have to look through all of them to sort of give
2 you like a definitive answer. If you want to -- I'm happy to
3 take the time.

4 THE COURT: No, we're not going to.

5 MS. MOYNE: That's okay. They're in evidence. Don't
6 worry about it. We'll go through some examples. They're in
7 evidence so the jury can look.

8 I will ask Mr. White to pull up No. 2.

9 BY MS. MOYNE:

10 Q. Okay. Do you see No. 2 on your screen?

11 A. I do.

12 Q. And also you have it in the binder if it's easier to see?

13 A. Yep.

14 Q. This is a trading sequence from October 1st, 2009,
15 correct?

16 A. Correct.

17 Q. And the product is silver futures?

18 A. Right.

19 Q. And the time for the sequence is approximately 8:07 a.m.,
20 correct?

21 A. That's right.

22 Q. Sorry. I didn't hear you.

23 A. I said yes. That's correct.

24 Q. And directing your attention to the red box with the
25 No. 2, Chris placed a red order to sell 105 contracts at the

1 top of the book, correct?

2 A. That's right.

3 Q. Again, we can tell because it's at the top of the shaded
4 area, right?

5 A. That's right.

6 Q. And there were no other sellers offering a better price at
7 that period of time, correct?

8 A. At the moment Mr. Jordan placed the order, that's correct.

9 MS. MOYNE: If we can pull up No. 3, please,

10 Mr. White.

11 BY MS. MOYNE:

12 Q. This is a trading sequence from October 2nd, 2009. Do you
13 see that?

14 A. I do.

15 Q. And it's also for silver futures, correct?

16 A. Yes.

17 Q. And the time is approximately 11:55 a.m.?

18 A. Yes.

19 Q. And, again, directing your attention to the red box, this
20 time with the No. 3, Chris placed his red order at the top of
21 the book, correct?

22 A. Yes.

23 Q. And, again, we can see that by the shaded box, right?

24 A. Right.

25 Q. Okay. So let's skip ahead to No. 21.

1 MS. MOYNE: If I could ask Mr. White to pull up that.

2 Thank you.

3 BY MS. MOYNE:

4 Q. So this is a trading sequence from October 15th, 2009,
5 correct?

6 A. Yes.

7 Q. The product is silver futures?

8 A. Yes.

9 Q. And the time is approximately 10:04 a.m.?

10 A. Yes.

11 Q. Now, in this example, Chris placed his red order at a new
12 best price, correct?

13 A. Yes, it would appear so.

14 Q. Because -- we can tell that because the shaded box
15 actually drops down to 105; is that correct?

16 A. That's correct.

17 Q. And before Chris placed his red order, the best offer
18 price was \$17.70. Do you see that?

19 A. That's right.

20 Q. And Chris placed his red order at a lower or better offer
21 price of \$17.69 and a half cents?

22 A. That's correct.

23 Q. Okay. And then if we can do one more. Go to number -- in
24 this group, No. 24, please.

25 This is another trading sequence from October 15th,

1 2009?

2 A. That's correct.

3 Q. The product is silver futures?

4 A. Yes.

5 Q. The time is approximately 12:12 p.m.?

6 A. Yes.

7 Q. And here Chris placed his red order at a new best price,
8 correct?

9 A. Yes.

10 Q. And, again, we can see it because the shaded box goes down
11 at the time of his order, correct?

12 A. That's right.

13 Q. And before Chris placed his red order, the best offer
14 price was \$17.39 and a half cents, correct?

15 A. That's correct.

16 Q. And when he placed his order, he placed it at a lower or
17 better offer price of \$17.39, correct?

18 A. That's correct.

19 Q. Okay.

20 MS. MOYNE: And if I could ask Mr. White to pull up
21 Government Exhibit 76 which is in evidence.

22 BY MS. MOYNE:

23 Q. Government Exhibit 76 are the trading sequences for 2010,
24 correct?

25 A. That's right.

1 Q. Okay. And if we could look at No. 55, please.

2 So this is a trading sequence from April 9th, 2010,
3 correct?

4 A. That's right.

5 Q. And, again, the product is silver futures?

6 A. Yes.

7 Q. The time is approximately 9:03 a.m., correct?

8 A. That's right.

9 Q. And here, Chris placed his order at a new best price,
10 correct?

11 A. Yes.

12 Q. Before Chris placed his red order, the best offer price
13 was \$18.35 and a half cents, and when he placed his red order,
14 he placed it at a lower or better offer price of \$18.35,
15 correct?

16 A. That's correct.

17 Q. And then last one, No. 56, this is a trading sequence from
18 April 13th, 2010, correct?

19 A. That's correct.

20 Q. And the product is gold futures this time, correct?

21 A. That's right.

22 Q. The time is approximately 8:30 a.m., correct?

23 A. That's correct.

24 Q. And here, Chris placed his red order at a new best price,
25 correct?

1 A. Yes, that's correct.

2 Q. And, again, we can tell because the shading drops down to
3 meet it, correct?

4 A. That's correct.

5 Q. And before Chris placed his red order, the best offer
6 price was \$1,156.40, correct?

7 A. Yes.

8 Q. And he placed his order at a lower or better price of
9 \$1,156.30, correct?

10 A. That's correct.

11 Q. Chris lowered the best offer price by 10 cents, correct?

12 A. Yes.

13 Q. Okay. So now I want to ask you about the only chart that
14 looks different. So if we could go back to number --
15 Government Exhibit 75. These are the sequences in 2009,
16 correct?

17 A. Yes.

18 Q. Okay.

19 MS. MOYNE: And I'm going to ask Mr. White to pull up
20 No. 35, please.

21 BY MS. MOYNE:

22 Q. So this is a trading sequence from October 26, 2009,
23 correct?

24 A. That's correct.

25 Q. And the product is silver futures?

1 A. That's right.

2 Q. The time is approximately 8:08 a.m.?

3 A. That's right.

4 Q. And directing your attention to the green box with the
5 No. 1, as shown in that box, Chris placed a green order to buy
6 20 silver futures contracts, correct?

7 A. Yes, an iceberg order to buy 20 futures contracts, silver
8 futures contracts.

9 Q. And so because it was an iceberg, other market
10 participants did not know how many total contracts Chris
11 actually wanted to buy, correct?

12 A. That is correct.

13 Q. If we can look at the top half of this chart, there are
14 two red orders, correct?

15 A. That is correct.

16 Q. Why does this chart have two red orders?

17 A. Well, it appears that within this sort of episode time
18 window, Mr. Jordan first placed 105 sell contract order that
19 was canceled and then a subsequent one when the first one was
20 canceled, another 105 contract order.

21 Q. There are other charts in Government Exhibit 75 or 76 with
22 two red orders, correct?

23 A. Not that I recall, but, again, you know, I'd have to flip
24 through all of them.

25 Q. We won't do that.

1 A. I haven't memorized all of them.

2 Q. But not to your memory?

3 A. Not to my memory.

4 Q. Okay. Now, the first red order was not at the top of the
5 book, correct?

6 A. That is correct.

7 Q. But the second red order was at the top of the book,
8 correct?

9 A. That's right.

10 Q. Chris canceled the first red order and placed a second red
11 order at \$17.70 which was the top of the book, correct?

12 A. That's correct.

13 Q. And to the best of your memory, is this the only chart
14 with a red order that was not at the top of the book?

15 A. To the best of my memory, again, I would sort of have to
16 look through all of them, but that seems correct, but to the
17 best of my memory, but I can't say.

18 Q. Fair to say you don't remember an episode right now?

19 A. Yeah, that's fair.

20 Q. All right. I'd like to shift gears and talk about
21 something else on the charts. If we can go back to No. 1 on
22 Government Exhibit 75.

23 THE COURT: If you're going to shift gears, let's
24 take our mid afternoon break at this point.

25 Ladies and gentlemen, I think we have some sweets and

1 snacks waiting for you. I'll see you in 15 minutes. All
2 right.

3 All rise.

4 (The jury leaves the courtroom.)

5 THE COURT: All right. You can step down for the
6 moment. Don't discuss your testimony. You're on
7 cross-examination.

8 Okay. I'll see you in 15.

9 (Recess from 2:48 p.m. to 3:05 p.m.)

10 (Change of court reporters.)

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1 (Proceedings heard in open court. Jury out.)

2 MR. FENTON: So for Special Agent Luca, he's going to
3 be both a fact witness and an expert witness.

4 THE COURT: Right.

5 MR. FENTON: In your Honor's June 2nd, 2022, order, I
6 believe that you indicated that we would do a bifurcation
7 where we'd do a direct, cross, and a redirect with him as a
8 fact witness, and then we would do the same with him as an
9 expert witness. Is that the Court's preference?

10 THE COURT: Yeah, what I do remember is the --
11 because of the dual nature of the testimony that there does
12 have to be bifurcation where it is clear that he's
13 transitioning from a fact witness to an opinion witness.

14 MR. FENTON: Okay.

15 THE COURT: Now, what I -- and perhaps I did. I just
16 don't remember authorizing that there be a then cross on the
17 fact, as a fact witness and then a redirect on the fact
18 witness.

19 So what's the defense position on this?

20 MS. CHURCH: Your Honor, I think it's our preference
21 that we do separate it out entirely. That is what your order
22 specified, and I know it's how we commonly do it here in the
23 Northern District so it's abundantly clear that the expert
24 testimony is not, you know, kind of just melding into the fact
25 testimony.

1 THE COURT: Okay. Well, sometimes we do, sometimes
2 we don't. But that's fine. Yes. He's prepped that way?

3 MR. FENTON: I mean, we can do it either way. We can
4 do it either way.

5 THE COURT: Then let's stick with what I had said
6 earlier apparently. So we'll have him testify completely as a
7 fact witness and then after the cross and redirect and start
8 as an opinion witness.

9 MR. FENTON: All right. Thank you, your Honor.

10 The second matter is, we had -- your Honor may recall
11 that Mr. Jordan had requested a break during the interview so
12 that he could attend to a personal obligation. Your Honor had
13 directed that the parties meet and confer about an instruction
14 that we could give to the jury to explain the break. And
15 we've done that, and we have an instruction which is just to
16 say, "Members of the jury, Mr. Jordan requested a break in the
17 interview for a reason that both sides agree was entirely
18 appropriate, and the interview resumed later that day."

19 THE COURT: Okay. Yeah, I had a note for myself to
20 look for that. So I'm glad you brought that up. Do you have
21 a copy there, or is it --

22 MR. FENTON: I do not have a written copy.

23 THE COURT: Or you can just email it to -- is it
24 something you can email easily?

25 MR. FENTON: Sure. I can email it to Mr. Wing.

1 THE COURT: Yeah, email it to the proposed order box.

2 MR. FENTON: Okay.

3 THE COURT: I'll just pull it up. And when do you
4 want me to -- so you'll flag the moment that it's appropriate
5 to do that, right?

6 MR. FENTON: I'm sorry?

7 THE COURT: You'll flag when -- I mean, you have an
8 agreement roughly when that's going to be read then?

9 MR. FENTON: I think I can flag for you, and we're
10 going to move when we talk about the interview. And I think
11 you can read it at that time.

12 THE COURT: All right. Is he going to testify -- is
13 he going to specify -- is Agent Luca going to specify that,
14 "Yeah, I was talking to him and then we took a break"? Or is
15 he just going to not try to split up when the statements were
16 made?

17 MR. FENTON: No, so he is going to -- he is going to
18 testify about that because there was actually an agreement
19 between him and Mr. Jordan at the outset of the interview
20 about the fact that they were going to take a break.

21 THE COURT: Oh, I see.

22 MR. FENTON: And that agreement actually affected how
23 Mr. -- how Special Agent Luca thought about how he spent his
24 time with Mr. Jordan, the morning versus the afternoon.

25 THE COURT: Okay. Then flag it early on.

1 MR. FENTON: So we're going to flag it early on
2 before we even get into the meat of the interview.

3 THE COURT: All right. Okay.

4 MR. FENTON: Thank you, your Honor.

5 MS. CHURCH: And actually, one more matter with
6 regard to Special Agent Luca, your Honor. We will also ask
7 your Honor before, as I understand it, Special Agent Luca will
8 be testifying to the CFTC testimony that we'd ask your Honor
9 to provide the jury instruction which I believe is currently
10 request 31 in the proposed jury instructions about the CFTC
11 investigation.

12 THE COURT: Okay. Is that the same one from the --

13 MS. CHURCH: Yes, your Honor.

14 THE COURT: -- trial, summer trial?

15 MS. CHURCH: Yes.

16 THE COURT: That, I did cut and paste already, but
17 the way it's framed is Government Exhibits, here I think, 55
18 and 56, relate to, and so on, but will -- do you anticipate
19 that Agent Luca is going to talk about government exhibits, or
20 he's just going to talk about the CFTC having deposed him?

21 MR. FENTON: So there's actually a point early on in
22 the interview with Mr. Jordan where Mr. Jordan raises the CFTC
23 interview, and that's something that I'm going to elicit from
24 Special Agent Luca.

25 THE COURT: You were not -- you were not

1 anticipating, though, that -- to introduce Government Exhibits
2 55 and 56 through Agent Luca?

3 MR. FENTON: We are.

4 THE COURT: Oh, you are.

5 MR. FENTON: And we're planning to do that at --
6 after we finish with the confession and then plan to introduce
7 those two exhibits through Agent Luca.

8 THE COURT: Right. But I do need to give, though, I
9 think, this limiting instruction when the topic first comes up
10 even if it's divorced from introduction of the exhibits.

11 MR. FENTON: Right.

12 THE COURT: Okay. So when that happens, if I've
13 missed it, just stand up and ask for the limiting instruction.
14 And I'll just say that, "You're going to hear testimony
15 relating to" rather than Government Exhibits 55 and 56. And
16 we'll do it again when the government exhibits are actually
17 introduced. All right?

18 MS. CHURCH: Yes. Thank you, your Honor.

19 THE COURT: All right.

20 (Proceedings heard in open court. Jury in.)

21 THE COURT: All right. Please be seated.

22 All right. Hope you enjoyed the snacks. We're ready
23 to resume the trial.

24 Mr. Silva, do you understand you're still under an
25 oath to tell the truth?

1 THE WITNESS: I do, yes.

2 THE COURT: All right. Ms. Moyne?

3 MS. MOYNE: Thank you, your Honor.

4 So, Mr. Silva, before the break, I was saying we're
5 going to shift gears, and I'd like to talk about something
6 else that's on the charts. And let me go back to my monitor
7 because it's easier for me to see.

8 I'll ask Mr. White to pull up Government Exhibit 75,
9 chart No. 1. It's also in your binder.

10 BY MS. MOYNE:

11 Q. And so we've looked at this already, but just to reorient
12 everyone, this is a sequence from September 30th, 2009, for
13 silver futures, correct?

14 A. Yes, that's correct.

15 Q. And directing your attention to green box No. 1 and red
16 box No. 2, you have included dollar amounts for the orders in
17 parenthesis, correct?

18 A. That's right.

19 Q. For Chris' green order, you have a dollar figure in
20 parenthesis of \$411,125?

21 A. That's right.

22 Q. And for his red order, you have a dollar figure in
23 parenthesis of 8.6 million, roughly?

24 A. Yes.

25 Q. These dollar amounts represent the notional value of

1 Chris' orders, correct?

2 A. That is correct.

3 Q. You have to do some math to calculate the notional values,
4 correct?

5 A. Yes.

6 Q. So the jury is already familiar with that, so I'll just
7 ask, did the government ask you to calculate the notional
8 values for all of Chris' red and green orders and to put those
9 figures in your charts?

10 A. It did, yes.

11 Q. You understand that the notional value represents the
12 value of the underlying product, in the case of silver
13 futures, silver?

14 A. Yes.

15 Q. But when one is buying or selling a silver futures
16 contract, one is not buying or selling the actual physical
17 silver, correct?

18 A. So it's outside of my area of expertise, but I think
19 generally that's how I understand it, yes.

20 Q. You have a general understanding that this is about buying
21 and selling contracts for a product, correct?

22 A. Yes. Futures contracts, yes.

23 Q. And so to go to our example here, let's assume for the
24 sake of argument that someone wanted to buy, the red order, to
25 buy 105 silver futures contracts at a price of \$16.45 per

1 ounce, and so Chris' red order was filled. That would mean
2 that Chris sold 105 silver futures contracts and someone else
3 bought them, correct?

4 A. So if the order was filled then yes, that's correct.

5 Q. Are you aware that when someone buys a futures contract on
6 the CME, they do not pay the notional value?

7 A. Again, same as before. You know, I looked at the data, so
8 I can't really tell you, but I think generally that seems
9 right.

10 Q. Are you familiar with the concept of margin?

11 A. In a very, very superficial way, so not in a way that I'm,
12 you know...

13 Q. Okay. We'll move on. So I'd like to shift gears, and
14 we've been talking about the red orders and the green orders
15 in your chart. Many of your charts also have gray on them,
16 correct?

17 A. That's -- the zoom-out charts?

18 Q. Yes.

19 A. Yes, they do.

20 Q. And let's go back here. We have Government Exhibit 75,
21 No. 1. This is trading sequence from September 30th, 2009.
22 And this chart shows the sequence for roughly four and a half
23 seconds, correct?

24 A. That's correct.

25 MS. MOYNE: And if we could look at 1-A, please,

1 Mr. White.

2 BY MS. MOYNE:

3 Q. Okay. So this shows the same sequence we just looked at
4 in No. 1, but it's zoomed out to show a longer period of time,
5 correct?

6 A. That's correct, yes. One minute before and one minute
7 after.

8 Q. So roughly two minutes total; a minute before, a minute
9 after?

10 A. Yes.

11 Q. And the trading sequence that we looked at in chart No. 1
12 is in that dotted line box, correct?

13 A. That is correct.

14 MS. MOYNE: And then if we could look at No. 1-B,
15 please, Mr. White.

16 BY MS. MOYNE:

17 Q. This is for about 20 minutes; 10 minutes before and 10
18 minutes after, correct?

19 A. That is correct.

20 Q. And again, we see the trading sequence with the red and
21 green order in the middle with the dotted line, correct?

22 A. That's right.

23 Q. And this chart also has a number of gray orders, correct?

24 A. It does, yes.

25 Q. It looks like there may be three gray orders before the

1 sequence and one gray order after, correct?

2 A. That looks right, yes.

3 Q. And it looks like there are some fills on the gray orders?

4 A. On the ones before, they appear to be filled, yes.

5 Q. And then there's -- at least one of them, it looks like
6 there's a cancellation?

7 A. That's right. The 500 order appears to be canceled.

8 Q. And Chris Jordan placed the gray orders, correct?

9 A. That's right.

10 Q. These are all real orders just like the green and red
11 orders in the box, correct?

12 A. Yeah. These are all orders that appear in the data.

13 Q. So why are some of Chris Jordan's orders in gray?

14 A. Well, those are outside of the episode windows that the
15 government announced us to focus on.

16 Q. Did the government tell you to put these orders in gray?

17 A. Yeah, I think so. That's right.

18 Q. And some of the charts you made have a lot of gray on
19 them, correct?

20 A. They have more than this, yes.

21 MS. MOYNE: If we could please pull up the trading
22 sequence in chart No. 5.

23 BY MS. MOYNE:

24 Q. This is a sequence from October 5th, 2009, correct?

25 A. That's right.

1 Q. The product is silver futures?

2 A. Yes.

3 Q. And the chart shows the time period of just under four
4 seconds?

5 A. Yeah. This episode is 3.86 seconds.

6 Q. And in this zoomed-in version, we can see the green order
7 and the red order, correct?

8 A. That's right.

9 MS. MOYNE: And can we please turn to No. 5-A.

10 BY MS. MOYNE:

11 Q. So this has the same red and green trading sequence,
12 correct?

13 A. That's correct.

14 Q. And in the middle box with the dotted -- that's the middle
15 box with the dotted line which is now highlighted, correct?

16 A. That's correct.

17 Q. And again, this shows a longer period with a minute before
18 and a minute after the sequence?

19 A. Right.

20 Q. And it looks like about 40 seconds after the red and green
21 orders, there's a gray order, correct?

22 A. Yes.

23 Q. And that's an order Mr. Jordan placed, correct?

24 A. Yes.

25 Q. And that order was filled, meaning someone bought the

1 contracts from Chris, correct?

2 A. That's right.

3 Q. And that gray order is a real order that you can find in
4 the CME data, correct?

5 A. Hang on. Mr. Jordan bought the contracts, right, I think
6 the red triangle? Someone sold the contracts to Mr. Jordan.

7 Q. Correct. Sorry. Someone sold the contracts to
8 Mr. Jordan, correct?

9 A. Yes.

10 Q. Sorry. I think I misspoke.

11 And that gray order is a real order that you can find
12 in the CME data?

13 A. That -- yeah. We got that from the CME data.

14 Q. And if we could look at No. 5-B, this is the same red and
15 green sequence, correct, in the middle, in the dotted line?

16 A. That's right.

17 Q. And it's roughly a 20-minute period with 10 minutes before
18 and 10 minutes after?

19 A. That's right.

20 Q. And here, there are multiple gray orders, correct?

21 A. Sorry. You were highlighting it. Yes, there are multiple
22 orders in gray.

23 Q. Right. Some of them are before the green and red
24 sequence, some of them are after?

25 A. That is correct.

1 Q. And Chris placed the gray orders?

2 A. Yes.

3 Q. And the gray orders are real orders just like the green
4 orders and the red orders?

5 A. Yes. These are all orders that show up in the CME Rapid
6 data.

7 Q. And some of the gray orders were filled, correct?

8 A. Yes.

9 Q. And some of them were canceled, correct?

10 A. That is also correct.

11 Q. So, Mr. Silva, would you agree that you have charts with
12 gray orders for all the 68 trading sequences?

13 A. I think that's right. I need to -- from memory.

14 Q. Okay. And the prosecutors told you to put those orders in
15 gray for all of the sequences, correct?

16 A. So -- sorry. The government asked us to make the zoom-out
17 charts, and then to the extent that there were trading
18 episodes by Mr. Jordan in the 10 minutes before, 10 minutes
19 after so, say, in the B version of these, those would have
20 been included in these charts.

21 Q. Okay. And so then -- I think we can take this down. I
22 don't think we need it anymore.

23 So, Mr. Silva, for all of the charts in Government's
24 Exhibits 75 and 76, there's at least one green order, correct?

25 A. Yes.

1 Q. And there's at least one red order, correct?

2 A. Yes.

3 Q. And many have gray orders?

4 A. Correct.

5 Q. And all of the green orders, red orders, and gray orders
6 represent orders that Chris placed on the CME, correct?

7 A. Yes.

8 Q. And all of the green orders and red orders and gray orders
9 that are found on your charts can be found in the massive CME
10 data files?

11 A. Yes.

12 Q. And that's how you know about the orders and were able to
13 put them on the chart?

14 A. Right. Yeah, that's correct.

15 Q. And some of Chris' orders on the charts were filled?

16 A. Yes.

17 Q. And some of Chris' orders shown on the charts were
18 canceled?

19 A. That's correct.

20 Q. And all of the charts include a light blue shaded area to
21 show the bid-offer spread?

22 A. That's right.

23 Q. And all of the charts include a dark blue line indicating
24 the mid-market price?

25 A. That's correct.

1 Q. Now, besides Chris' orders, the bid-offer spread, and the
2 mid-market price, the CME data includes a lot of other
3 information, correct?

4 A. Yeah. Yeah, there's a lot of other data fields in the
5 data, yes.

6 Q. And I'll be more specific. The government's do not show
7 on the charts the orders placed by other traders, correct?

8 A. That is correct, yes.

9 Q. And the CME data includes many, many, many orders that
10 were placed by other traders who were active at the same time
11 that Chris was trading, correct?

12 A. So, yeah, the CME data should contain all the sort of
13 trading activity, so including for all the traders.

14 Q. And do you have an understanding that some of the traders
15 who were trading at the same time were human traders?

16 A. Yes, I think so, yeah.

17 Q. Do you have an understanding that some of the traders were
18 algorithms like Q1P?

19 A. Yes, in a very sort of superficial sense, yes.

20 Q. And you can tell from the CME data that there were other
21 traders placing bids during the time periods shown on the
22 charts, correct?

23 A. Right.

24 Q. But those orders are not on the prosecutors' charts?

25 A. Yes. I think I testified before that we were asked not

1 to. You know, we were asked to focus on Mr. Jordan's trading
2 episodes.

3 Q. And so fair to say that there are also other traders
4 placing offers to sell during the time period of the charts,
5 and those sale orders are not included on the charts?

6 A. That's correct.

7 Q. Now, some of the bids and offers placed by other traders
8 were filled, correct?

9 A. I think if we look at the data, we'd probably find that,
10 yes.

11 Q. But those executed trades are not on the charts, correct?

12 A. Right.

13 Q. The prosecutors asked you not to include that on the
14 charts?

15 A. Well, the pros- -- the government asked us to make the
16 charts that they asked us to make.

17 Q. And they did not want you to include orders or executed
18 trades by traders other than Mr. Jordan, correct?

19 A. They asked us to include Mr. Jordan's trades.

20 Q. And not the other trades?

21 A. That's correct.

22 Q. And so they also asked you not to include canceled trades
23 for traders other than Mr. Jordan, correct?

24 A. Right. Under the rubric of what they asked us, that's
25 correct.

1 Q. And so the prosecutors told you to only include Chris'
2 orders on the charts, correct?

3 A. Yes, Mr. Jordan's orders.

4 Q. And the prosecutors told you to put some of Chris Jordan's
5 orders in gray?

6 MR. SULLIVAN: Your Honor, I think we're far beyond
7 cumulative by now.

8 THE COURT: Overruled. Go ahead and answer.

9 BY THE WITNESS:

10 A. So yes, they asked us to include Mr. Jordan's activity in
11 the zoom-out charts that are outside of the episodes within
12 the time period in gray, yes.

13 MS. MOYNE: May I have one minute, your Honor?

14 THE COURT: All right.

15 MS. MOYNE: Nothing further. Thank you, Mr. Silva.

16 THE COURT: All right. Any redirect?

17 MR. SULLIVAN: No, your Honor. No redirect from the
18 government. Thank you.

19 THE COURT: Okay. Mr. Silva, you're excused. You
20 may step down.

21 (Witness excused.)

22 THE COURT: And the government may call its next
23 witness.

24 MR. FENTON: If we may please call Supervisor Special
25 Agent Jonathan Luca.

1 THE COURT: Step up here, please. Okay. Mr. Luca,
2 before you sit down, you can unmask for the testimony, and
3 then raise your right hand.

4 (Witness sworn.)

5 THE WITNESS: Absolutely.

6 THE COURT: All right. Have a seat.

7 THE WITNESS: Thank you, your Honor.

8 THE COURT: All right. Mr. Fenton?

9 MR. FENTON: Thank you, your Honor.

10 JONATHAN LUCA, GOVERNMENT'S WITNESS, SWORN

11 DIRECT EXAMINATION

12 BY MR. FENTON:

13 Q. Good afternoon, Special Agent Luca. Can you please
14 introduce yourself to the jury and spell your name for the
15 record?

16 A. Sure. Good afternoon, ladies and gentlemen of the jury.
17 I'm Special Agent Jonathan Luca. J-o-n-a-t-h-a-n, L-u-c-a.

18 Q. And where do you work, sir?

19 A. I work for the Federal Bureau of Investigation.

20 Q. And what is your title at the FBI?

21 A. Currently, I'm a supervisory special agent.

22 Q. Now, as a supervisory special agent, do you supervise a
23 specific squad?

24 A. I do. So at the moment, I supervise a squad of
25 individuals that are focused on complex white collar crime

1 with a focus on market manipulation, insider trading, and
2 corporate fraud.

3 Q. And where is that squad based?

4 A. Out of New York City.

5 Q. And can you please just tell the jury a little bit about
6 the white collar squad and the type of work that it does?

7 A. Sure. So like I said, we're focused on market
8 manipulation which would include pump-and-dump schemes or
9 allegations of manipulative trading; insider trading cases
10 that you're familiar with where people share material,
11 nonpublic information for profit or for loss avoidance; and
12 corporate fraud investigations focused on C-suite level
13 executives or other people who may manipulate certain kinds of
14 information to profit at the corporate level.

15 Q. Okay. So you currently supervise the white collar squad.
16 What did you do before you became the SSA for the white collar
17 squad in New York?

18 A. So prior to taking the desk in New York City, I spent a
19 year and a half down in Washington, D.C., and I was a
20 supervisory special agent and at times acting unit chief for a
21 counterterrorism unit that focused on disrupting foreign
22 terrorist organizations' ability to finance operations.

23 Q. All right. So for how long were you doing
24 counterterrorism work?

25 A. 18 months.

1 Q. And what exactly does that entail, just kind of day to
2 day?

3 A. Sure.

4 MS. CHURCH: Objection. Relevance.

5 THE COURT: Sustained.

6 BY MR. FENTON:

7 Q. Was there a time when you were a special agent on the
8 white collar squad that you now supervise?

9 A. Yes, I was.

10 Q. And can you tell us a little about that?

11 A. Sure. So I spent a number of years on that white collar
12 squad working on the same matters that I am currently focused
13 on as a supervisory special agent. So again, I was focused on
14 corporate fraud, market manipulation, insider trading cases.

15 Q. And during your time with the FBI, approximately how many
16 cases have you investigated?

17 A. Roughly 100 cases.

18 Q. And around how many of those cases involved trading in
19 commodities, if any?

20 A. Roughly half of those cases.

21 Q. Half. So you've investigated about 100, and roughly half
22 would be about 50?

23 A. Yes.

24 Q. Okay. Before you joined the FBI, did you have experience
25 with the business of commodities trading?

1 A. I did.

2 Q. And when did you first become familiar with the business
3 of commodities trading?

4 A. So at some point during my college career, I was an intern
5 that basically ran tickets for a neighbor of mine that was a
6 trader on the floor of the New York Mercantile Exchange.

7 Q. And is that commonly referred to as the NYMEX?

8 A. That's correct.

9 Q. And did you do any other work for NYMEX while you were in
10 college?

11 A. Yeah. At some point later on during college, I interned
12 again at NYMEX but this time in their internal auditing
13 department.

14 Q. And what did that work entail?

15 A. A lot of it was just basically reconciliation of invoices
16 and receivables, making sure that they were going to the
17 appropriate call centers. It was very accounting and audit
18 driven.

19 Q. All right. So at some point after your internship with
20 NYMEX, did you get a job working for a Wall Street bank?

21 A. I did.

22 Q. And approximately when was that?

23 A. So I started working not long after I graduated from
24 college, so it was probably the summer of 2004.

25 Q. And which bank did you work for?

1 A. So I started working for Morgan Stanley.

2 Q. And what did you do for Morgan Stanley when you first
3 joined the firm?

4 A. When I first joined Morgan Stanley, I started off in their
5 back office in operations section in 2004.

6 Q. And what do you mean by the term "back office?" What does
7 that entail?

8 A. So back office is the terminology or the name for the
9 departments that support the bank. It's essentially how the
10 bank operates. Typically, you would categorize the bank into
11 three sections: Back office, middle office, and front office.
12 The back office is focused on a lot of the day-to-day work
13 that keeps the bank functioning and keeps the trading desks
14 afloat.

15 Q. Now, did any of your work in the back office involve
16 commodities trading?

17 A. It did.

18 Q. And can you tell the jury a little bit about that?

19 A. So during my time, like, working in the back office, one
20 of my roles was to reconcile accounts. So a lot of the
21 accounts that we had did trade commodities, and I would
22 reconcile their trading tickets versus the accounts or
23 actually reconcile the bank's positions against what was known
24 against counterparties on the street.

25 Q. And would that include orders involving precious metals

1 futures contracts?

2 A. It would.

3 Q. And what were your day-to-day responsibilities with
4 respect to precious metals futures contract orders
5 specifically?

6 A. Yeah, most of the stuff in the operations level at the
7 back office was to just reconcile the tickets and make sure
8 that everything was in line and settling up with the
9 counterparties. So it was very detail driven. It was
10 basically making sure that any of the information that our
11 clients and/or the bank knew on our side matched with the
12 counterparties on the other side of the trade.

13 Q. Now, did you ever move from the back office operations at
14 Morgan Stanley to the trading floor itself?

15 A. I did.

16 Q. Approximately when was that?

17 A. It was roughly two years later, two and a half years
18 later.

19 Q. And what did you do once you started working on the
20 trading floor?

21 A. So my first job working up on the trading floor, I was
22 still in a support role. I was a middle office role. I was a
23 trade assistant, and I supported the capital markets desk at
24 Morgan Stanley at that time.

25 Q. And what specifically did you do as a trading assistant?

1 A. So my primary roles were working on the interest rate
2 side. So I focused on supporting the trading desks that were
3 treasuries driven or precious metals, foreign exchange, and
4 then sometimes I would help out with corporate bonds and
5 municipals. My day-to-day was to support the trading desk
6 essentially in everything that they needed in order to do
7 their job.

8 Again, it was very support driven. So my job as the
9 trade assistant in the middle office was to work with the guys
10 in the back office to rectify and resolve any kind of breaks
11 or trade discrepancies that may exist between counterparties
12 and/or clients.

13 Q. So approximately how long did you work in the middle
14 office for?

15 A. It was about another two and a half years, two years.

16 Q. Okay. And did there come a time when you became a trader?

17 A. There did.

18 Q. And when was that?

19 A. It was two years after I started as -- two, two and a half
20 years after I started as a trade assistant on the desk.

21 Q. So what did you trade as a trader?

22 A. So I traded precious metals: Gold, silver, platinum, and
23 palladium.

24 Q. And for how long did you trade precious metals contracts?

25 A. Roughly two and a half years.

1 Q. And as a precious metals trader, what did you do day to
2 day?

3 A. So my day-to-day responsibilities as a precious metals
4 trader on that desk was to manage risk normally and facilitate
5 customer order flow. So a lot of what I was supporting was a
6 client's desire and need to physically purchase tangible gold,
7 silver, platinum, or palladium coins or bars and then manage
8 that risk on behalf of the firm through trading futures
9 contracts.

10 Q. Okay. And approximately when did you leave to join the
11 FBI?

12 A. So it would have been summer of 2011.

13 Q. Okay. So how long were you working on Wall Street then
14 for?

15 A. At the time I left, it was somewhere around seven years or
16 so.

17 Q. And how long have you worked for the FBI?

18 A. I just passed my ten-year anniversary.

19 Q. And for that entire time, your work has involved
20 commodities trading; is that fair?

21 A. Over at the bank or on -- when I was an agent?

22 Q. Wall Street and then also your time at the FBI.

23 A. Yes, that's correct.

24 Q. Okay. Have you met the defendant, Christopher Jordan?

25 A. I have.

1 Q. Have you spoken with him?

2 A. I have.

3 Q. Do you see him sitting here today in the courtroom?

4 A. Yes, I do.

5 Q. And what is he wearing? Can you point him out for the
6 jury?

7 A. Sure. So Mr. Jordan is wearing a blazer and checkered
8 kind of shirt and cream-colored tie.

9 Q. All right. Focusing on the time period 2008 to 2010, what
10 did Mr. Jordan do for work?

11 A. Mr. Jordan was a bullion trader at JPMorgan Chase.

12 Q. And what does that mean?

13 A. So he traded gold, silver. Mainly he traded gold and
14 silver for JPMorgan.

15 Q. Okay. And as a gold and silver trader, did he also trade
16 futures contracts?

17 A. He did.

18 Q. And did he trade electronically?

19 A. He did.

20 Q. And was that on the CME exchanges?

21 A. It was.

22 Q. COMEX and NYMEX?

23 A. It was.

24 Q. And where did he work?

25 A. So he worked in -- at JPM's offices in midtown Manhattan.

1 Q. And did he work at any other banks?

2 A. He did. He also worked at Credit Suisse First Boston.

3 Q. All right. I'd like to show you a few exhibits starting
4 with Government Exhibit 37.

5 All right. Special Agent Luca, do you recognize this
6 document?

7 A. I do.

8 Q. What do you recognize this to be?

9 A. So this is a summary profile for Mr. Jordan from his time
10 at JPMorgan. It's essentially his HR profile.

11 MR. FENTON: Your Honor, at this time we'd move to
12 admit Government Exhibit 37.

13 THE COURT: Any objection?

14 MS. CHURCH: No objection, your Honor.

15 THE COURT: Allowed.

16 MR. FENTON: Permission to publish?

17 THE COURT: You may.

18 MR. FENTON: Thank you.

19 (Government's Exhibit 37 received in evidence.)

20 BY MR. FENTON:

21 Q. Directing your attention to Page 2 to the bottom of the
22 page, "Job history," can you tell us when Mr. Jordan was hired
23 at JPMorgan?

24 A. Sure. So he was hired in March of 2006.

25 Q. And when was he terminated from JPMorgan?

1 A. At the end of December 2009.

2 MR. FENTON: All right. Let's now take a look at
3 Government Exhibit 38. And we just want to show this just to
4 the witness first, please.

5 BY MR. FENTON:

6 Q. All right. Special Agent Luca, do you recognize this
7 document?

8 A. I do.

9 Q. And what is this?

10 A. So this is a year-end summary of Chris' performance, so
11 his performance evaluation while he was at JPMorgan.

12 Q. And is this for any particular year?

13 A. It is for the year 2008.

14 Q. And do you see the name Michael Nowak at the top there?

15 A. I do.

16 Q. Who is Michael Nowak?

17 A. Michael Nowak was another employee at JPMorgan, and he was
18 Chris' -- one of Chris' supervisors.

19 MR. FENTON: All right. At this time, your Honor,
20 we'd move to admit Government Exhibit 38.

21 THE COURT: Any objection other than previous ones?

22 MS. CHURCH: No objection, your Honor.

23 THE COURT: All right. It's allowed.

24 MR. FENTON: Permission to publish.

25 THE COURT: All right.

1 (Government's Exhibit 38 received in evidence.)

2 | BY MR. FENTON:

3 Q. All right. Let's move down to Page 2, please. And
4 Special Agent Luca, can you read for the jury the second
5 paragraph there of Mr. Jordan's performance review?

6 || A. Sure.

7 "Through August, he proved that he could continue to
8 be profitable even without quoting gold, but for the last
9 four months of the year, he struggled to move further
10 ahead. I think CJ's instincts remain one of the best
11 I've seen in spot trading, and the key to 2009 will
12 simply be to limit his drawdowns and hold onto the money
13 he makes on his good days. I think he's made a material
14 improvement in this from 2007 to 2008, but there have
15 been isolated big down that we need to completely
16 eliminate and ensure a better capture rate of PnL next
17 year."

18 Q. And can you tell the jury, what is spot trading?

19 A. So it's trading that happens with settlement today and not
20 in the future.

21 Q. And was Mr. Jordan a spot trader?

22 || A. He was.

23 Q. And as a spot trader, would Mr. Jordan also have traded in
24 the futures market?

25 A. He would have.

1 Q. And why is that?

2 A. So the liquidity in the futures market or the availability
3 to manage risk is better in the futures market. So if
4 Mr. Jordan were trading spot, spot trades for delivery in
5 order to manage his risk and exposure, he would have traded in
6 the futures market to mitigate that risk.

7 Q. All right. Did you obtain this document as part of your
8 investigation?

9 A. I did.

10 Q. And what, if anything, did this review, this performance
11 review tell you about Mr. Jordan's experience as a trader?

12 A. So he was regarded by his supervisor as somebody who they
13 still trusted. In fact, that he mentioned that his instincts
14 remain one of the best that he's seen, but they did have some
15 concerns with his potential ability to manage risk.

16 Q. All right. And the phrase "PnL" is used here. Do you
17 know what PnL means?

18 A. Yes. So PnL is a short form annotation for profit and
19 loss. And essentially, it's how much money you earn or lose
20 in a given period as a trader.

21 Q. All right. Let's move on to another exhibit, and let's
22 take a look at Government Exhibit 47, please. And Special
23 Agent Luca, do you recognize this document?

24 A. I do.

25 Q. What do you recognize this to be?

1 A. So again, it's Chris Jordan's HR profile from Credit
2 Suisse First Boston.

3 MR. FENTON: Your Honor, we move to admit Government
4 Exhibit 47.

5 THE COURT: Any objection other than previous ones?

6 MS. CHURCH: No objection, your Honor.

7 THE COURT: It's allowed.

8 MR. FENTON: Permission to publish?

9 THE COURT: All right.

10 (Government's Exhibit 47 received in evidence.)

11 BY MR. FENTON:

12 Q. All right. Directing your attention to the bottom of the
13 page, what was Mr. Jordan's start date at Credit Suisse?

14 A. So Mr. Jordan started at Credit Suisse in March of 2010.

15 Q. And what was his termination date?

16 A. August of 2010.

17 Q. All right. And I believe we've spoken about both of these
18 banks, but can you just tell us, what is JPMorgan?

19 A. So JPMorgan is a global financial institution. It's
20 probably one of the biggest banks in the world in North
21 America.

22 Q. And what about Credit Suisse?

23 A. Again, it's a global financial institution and it is -- it
24 is probably, again, one of the bigger global financial
25 institutions that exist.

1 Q. All right. Let's move on to Government Exhibit 44. And
2 do you recognize this document, sir?

3 A. I do.

4 Q. And what is this?

5 A. So this is Chris Jordan's offer letter from Credit Suisse.

6 MR. FENTON: All right. Your Honor, we'd move to
7 admit Government Exhibit 44.

8 THE COURT: Any objection?

9 MS. CHURCH: No, your Honor.

10 THE COURT: All right. It's allowed.

11 MR. FENTON: Permission to publish?

12 THE COURT: You may.

13 (Government's Exhibit 44 received in evidence.)

14 BY MR. FENTON:

15 Q. All right. Focusing on the top paragraph there, can you
16 tell us, how much did Mr. Jordan and Credit Suisse agree on as
17 a base salary for his first year at the bank?

18 A. So they had offered him \$250,000 for his first year at the
19 bank.

20 Q. All right. So that's \$250,000 for the bonus?

21 A. No. That's --

22 Q. I'm sorry. \$250,000 for the salary. And was there also
23 mention of a bonus as well?

24 A. Yeah. There was a performance bonus of 200,000 subject to
25 certain restrictions.

1 Q. All right. So his total comp for the first year at Credit
2 Suisse would have been a guaranteed \$450,000 had he completed
3 the year?

4 A. That's correct.

5 Q. All right. Next, I'd like to move on to Government
6 Exhibit 45 and 46, if we could put those up side by side. All
7 right.

8 Special Agent Luca, do you recognize these documents?

9 A. I do.

10 Q. And what are these?

11 A. So these are documents that were sent to Mr. Jordan while
12 he was at Credit Suisse because he was seeking access to
13 Globex's electronic trading platforms via their PrimeTrade
14 system. And this is an attestation on 46 that Chris has
15 basically read the rules and is aware of what it is and his
16 signature.

17 MR. FENTON: Okay. Your Honor, we move to admit
18 Government Exhibits 45 and 46.

19 THE COURT: Any objection?

20 MS. CHURCH: No objection, your Honor.

21 THE COURT: All right. Those are allowed.

22 MR. FENTON: Permission to publish.

23 THE COURT: All right.

24 (Government's Exhibits 45 and 46 received in evidence.)

25 BY MR. FENTON:

1 Q. All right. So let's look at both of these documents.
2 Let's take them each in turn. So you mentioned that the first
3 is an email that he would have to review in order to get
4 access to Globex. So what is Globex?

5 A. So Globex is CME's electronic trading platform. It's
6 their -- like I said, it's their electronic trading system.

7 Q. All right. And this form is requesting access for
8 Mr. Jordan to trade precious metals contracts electronically?

9 A. That's correct.

10 MS. CHURCH: Objection. Leading.

11 THE COURT: Overruled. It can stand. Go ahead.

12 BY MR. FENTON:

13 Q. With the CME?

14 A. That's correct.

15 Q. All right. Directing your attention to the bottom of the
16 email, can you read for the jury the -- I'm sorry. Yes, the
17 top there. Can you read for the jury that first paragraph?

18 A. "You have requested access to the Globex, CME, ECBOT,
19 NYMEX, COMEX via the PrimeTrade system for trading. In
20 the absence of specific examination requirements, CSSU
21 employees who wish to be permissioned to access these
22 exchanges via PrimeTrade must have sufficient knowledge
23 of the relevant rules and regulations of the exchanges.
24 Please refer to the attached email and links below which
25 detail the rules and regulations."

1 Q. All right. And then once -- can you jump down below the
2 links and just read the couple sentences right below?

3 A. "Once you have done so, please print out the attached
4 PrimeTrade user request form below, check off the appropriate
5 booking entity, sign it, and have your manager sign it as
6 well."

7 Q. All right. Let's look at Government Exhibit 46. And is
8 this the form that Mr. Jordan was supposed to sign
9 acknowledging that he had reviewed the CME's rules and
10 regulations?

11 A. It is.

12 Q. All right. Directing your attention to the bottom of the
13 page, can you read for the jury that sentence starting with,
14 "By signing"?

15 A. "By signing this form, you are confirming that you have
16 read, understood, and agree to comply with the relevant
17 exchange rules and regulations."

18 Q. All right. And would these have been the rules that
19 applied to trading precious metals contracts on the CME
20 exchange?

21 A. That's correct.

22 Q. And did Mr. Jordan sign his name here?

23 A. He did.

24 Q. All right. Let's move on to Government Exhibit 88,
25 please. Special Agent Luca, do you recognize this document?

1 A. I do.

2 Q. And what is this?

3 A. So this is an annual compensation chart for Chris Jordan.

4 It's basically a summary of what Chris earned in 2008, 2009,
5 and 2010 while employed at JPMorgan and Credit Suisse.

6 Q. And did you oversee the creation of this document?

7 A. I did.

8 Q. And do you understand where the information that this
9 document is based on comes from?

10 A. I do.

11 Q. And does putting this data in this chart form make it more
12 convenient to examine?

13 A. Yes, it does.

14 MR. FENTON: Your Honor, we'd move to admit
15 Government Exhibit 88.

16 THE COURT: Any objection other than previous ones?

17 MS. CHURCH: No objection, your Honor.

18 THE COURT: It's allowed.

19 MR. FENTON: Permission to publish.

20 THE COURT: All right.

21 (Government's Exhibit 88 received in evidence.)

22 BY MR. FENTON:

23 Q. All right. Special Agent Luca, can you walk us through
24 the chart beginning on the left side of the chart to the
25 right?

1 A. Sure. So for the left column, it just stipulates the year
2 and entity that Chris was employed at, so 2008, JPMorgan;
3 2009, JPMorgan; and 2010, Credit Suisse.

4 The middle column just basically is breaking out into
5 separate subsections of what his base salary was composed of
6 and then a bonus if he earned one and then a total. So and
7 then in the -- the right column is just the numerical values
8 of his base, bonus, and the totals for those entities in those
9 years.

10 Q. All right. So what was his total compensation from
11 JPMorgan for 2008?

12 A. So for 2008 it was \$775,016.

13 Q. And how about for 2009 from JPMorgan?

14 A. In 2009 it was 350,000.

15 Q. And how about for 2010 from Credit Suisse?

16 A. In 2010 for Credit Suisse, it was 106,750.

17 Q. All right. Now, when we looked at Government Exhibit 44,
18 Mr. Jordan and the bank had originally agreed on \$450,000 for
19 the first year; is that right?

20 A. At Credit Suisse, that's correct.

21 Q. Okay. This number is different, though. And do you have
22 an understanding as to why?

23 A. Yes.

24 Q. And why is that?

25 MS. CHURCH: Objection. Foundation.

1 THE COURT: Sustained.

2 BY MR. FENTON:

3 Q. Did you review the underlying compensation information to
4 get this number?

5 A. I did.

6 Q. Okay. And what did you learn when you reviewed that
7 information?

8 A. So during his time that he was employed at Credit Suisse,
9 that was the total amount that he was paid during his tenure
10 there.

11 Q. Okay. Was that on a pro rata basis?

12 A. Correct.

13 Q. All right. Let's move on to your investigation,
14 Mr. Jordan. What were you investigating when you came across
15 Mr. Jordan initially?

16 A. So I had been working on a number of different
17 manipulative allegations with regard to the precious metals
18 market: Spoofing, layering, and other manipulative tactics.
19 In the course of that investigation, I had been interviewing
20 other individuals, other traders, salespeople. At one point
21 during the course of that investigation during an interview,
22 somebody had mentioned that -- mentioned Mr. Jordan's name and
23 that they believed that --

24 MS. CHURCH: Objection. Hearsay.

25 THE COURT: Okay. Response?

1 MR. FENTON: Your Honor, we're just asking for
2 background as to how he identified Mr. Jordan as a person of
3 interest.

4 THE COURT: Okay. So the objection is overruled but
5 with this limiting instruction, ladies and gentlemen. This
6 reference to someone passing along the name to the agent, you
7 cannot take that for the truth, right, of any kind of matter
8 asserted there. It's only to explain why then the witness
9 took further steps. It's the only reason you're hearing that
10 testimony.

11 All right. With that, you can proceed.

12 BY MR. FENTON:

13 Q. All right. So Special Agent Luca, let me ask you, just to
14 back up for a moment, you said that when you were
15 investigating -- when you first came across Mr. Jordan, you
16 were investigating spoofing?

17 A. That's correct.

18 Q. What is spoofing?

19 A. Spoofing is the manipulative trading tactic where in which
20 you place a genuine order into the market and then you place
21 another order which you do not intend to fill in order to
22 mislead or manipulate the market into thinking that there's
23 false sense of supply or demand in order to get your other
24 market -- your other order filled.

25 Q. Okay. So you start with a genuine order that you actually

1 want to trade?

2 A. Yes. So the process is, you start with a genuine order in
3 which you wish -- you actually want to trade. For whatever
4 reason, you're not happy with the direction that the market is
5 moving. You then decide that, I'm going to place another
6 order in the market on the opposite side of that initial order
7 which is significantly greater in size.

8 As a result, you send signals to the market, and the
9 market may retreat back into the other order. You start to
10 get your fills. And then you cancel the large order so that
11 you're not actually executed on the bigger one.

12 Q. Okay. Is it important that you cancel the spoof order
13 quickly?

14 A. Very much so.

15 Q. And why is that?

16 A. The last thing -- if you're actually spoofing, the last
17 thing that you want to do is have your spoof order be
18 executed. It's counterproductive to the actual reason why
19 you're trying to trade.

20 So, for example, if I wanted to buy something, I
21 would place a sell order in order to push the market into my
22 buy order. If for whatever reason I got picked off on my sell
23 order, now I'm doubled down in the position that I need to be
24 in because now I've sold more than I already wanted to have.

25 Q. All right. So you basically described a four-step

1 pattern, right?

2 A. Correct.

3 Q. Okay. So you've got the genuine order, a small genuine
4 order on one side. And is that sometimes iceberged?

5 A. It sometimes is iceberged, correct.

6 Q. And we'll come back to that in a minute. Then you've got
7 a much larger deceptive order. That's step two, right?

8 A. Correct.

9 Q. And step three is the fill?

10 A. Is the fill of the genuine order.

11 Q. Genuine order. And step four is the cancellation of the
12 deceptive order?

13 A. That's correct.

14 Q. Okay. I had asked you earlier how you had come to
15 identify Mr. Jordan as a person of interest. Was there
16 anything else that you did to identify him as a person of
17 interest in addition to what you already testified about?

18 A. Yes. So at some point in 2018, we had requested a
19 voluminous amount of trading information from the CME in the
20 precious metals market space, so in gold, silver, platinum,
21 and palladium.

22 We applied a bunch of logic to that data from the
23 year's previous investigations, all the cooperators and
24 experts, in order to comb through that data and come up with a
25 list of individuals or a list of Tag 50s that had traded in a

1 manner that was consistent with what we believed to be
2 spoofing based on the investigation. That --

3 MS. CHURCH: Objection, your Honor, to the narrative
4 response.

5 THE COURT: Okay. That concludes the answer. So
6 next question.

7 BY MR. FENTON:

8 Q. Okay. So is it fair to say you looked first at the
9 trading generally; is that right?

10 A. That's correct.

11 Q. Okay. And then you focused on some specific individuals?

12 A. That's correct.

13 Q. All right. And approximately when did you identify
14 Mr. Jordan as a person of interest?

15 A. So initially it would have been back in 2016, but more
16 formally it would have been in 2018.

17 Q. All right. And did this relate to his trading when he was
18 at JPMorgan and Credit Suisse?

19 A. That is correct.

20 Q. So as part of the investigation, I think you said you
21 collected trading data from the CME; is that correct?

22 A. That's correct.

23 Q. Okay. And did that include trading data for Mr. Jordan?

24 A. It did.

25 Q. And did the -- did you do an analysis of Mr. Jordan's

1 trading?

2 A. We did.

3 Q. And did that cover several years?

4 A. It did cover several years.

5 Q. And based on your review of Mr. Jordan's trading activity,
6 did you identify any suspicious trading patterns?

7 MS. CHURCH: Objection. Leading.

8 THE COURT: Overruled.

9 BY THE WITNESS:

10 A. Yes. So in the course of that data analysis, we did
11 identify a number of trading events that were linked to Chris
12 Jordan.

13 BY MR. FENTON:

14 Q. Okay. And did they follow the four-step pattern that
15 we've discussed?

16 A. They did.

17 Q. Okay. So we've discussed this four-step pattern. Is that
18 the only pattern for spoofing, or were there variations as
19 well?

20 A. There are variations to how one could spoof.

21 Q. Okay. But you saw -- you saw in Mr. Jordan's trading some
22 trades that followed that four-step pattern; is that correct?

23 A. That's correct.

24 Q. Okay. And was this pattern consistent with what you had
25 seen in other spoofing investigations that you had worked on?

1 A. Absolutely.

2 Q. All right. Let's take a look at Government Exhibit 83.
3 Special Agent Luca, do you recognize this document?

4 A. I do.

5 Q. What do you recognize this to be?

6 A. So this is the visual depiction of that data. So this is,
7 we call them charts, R charts. And this is -- this is an R
8 chart of one of Mr. Jordan's examples that fell within that
9 sample set of data.

10 Q. Okay. So these are just some examples?

11 A. Correct.

12 MR. FENTON: Your Honor, we'd move to admit
13 Government Exhibit 83.

14 THE COURT: Okay. Any objection?

15 MS. CHURCH: No objection.

16 THE COURT: All right. 83 is allowed.

17 MR. FENTON: Permission to publish.

18 THE COURT: All right.

19 (Government's Exhibit 83 received in evidence.)

20 BY MR. FENTON:

21 Q. All right. So you said these charts show what you
22 understood to be spoofing; is that right?

23 A. That's correct.

24 Q. And you said there are multiple examples here. Do these
25 all come from a single day?

1 A. These examples in question, yes.

2 Q. Okay. And what day is that?

3 A. October 15th, 2009.

4 Q. All right. So can you walk us through an example of the
5 pattern that you found using one of these charts? I guess we
6 can just start with the chart that we have here.

7 A. Sure. So in this example, Mr. Jordan has an order placed
8 for 14 at the -- on the buy side of the market. So he's
9 looking to buy 14 contracts at a price of 17 spot 615.

10 Some time passes. Mr. Jordan is not getting any
11 fills on that initial order. He then places opposite of that
12 order a larger fully exposed order for 105 contracts on the
13 sell side of the market at 17 spot 62. The market reacts
14 accordingly and moves lower into the initial order at 17 spot
15 615.

16 Those triangles that are over there, those are
17 indications of trades that are being executed. And then a
18 short time later, Chris cancels the trade for 105 contracts
19 after he gets his execution.

20 Q. All right. And is this the four-step pattern that you
21 described earlier?

22 A. That's correct.

23 Q. All right. And how do you know that this -- that these
24 trades were Christopher Jordan's trades and not some other
25 trader?

1 A. So up at the top of the chart there, it says Tag 50,
2 CJORDAN. We know from records that we obtained from the CME
3 that CJORDAN was Chris Jordan's unique identifier, otherwise
4 known as his Tag 50.

5 Q. All right. And can we just scroll through the rest of
6 this exhibit just page by page?

7 So Special Agent Luca, are these -- these are all
8 examples from the same day, right?

9 A. That's correct.

10 Q. All right. After you reviewed these charts, did this lead
11 you to want to interview Mr. Jordan?

12 A. Yes, I did.

13 Q. Why did you want to interview Mr. Jordan?

14 A. Because Chris is the only person that could tell me what's
15 actually happening here. The charts are only part of it, and
16 I thought it was important for me to speak to Chris about his
17 trading activity and what's depicted in these examples.

18 Q. All right. So as part of your investigation, did you also
19 review emails that Mr. Jordan had sent or received?

20 A. I did.

21 Q. How about instant messages or chats involving Mr. Jordan?

22 A. I did.

23 Q. So is it fair to say you had done a lot of work before you
24 decided to actually interview Mr. Jordan?

25 A. Yeah. Doing an interview is hard enough on its own, so

1 you tend to spend a fair amount of time preparing --

2 MS. CHURCH: Objection to the narrative response,
3 your Honor.

4 THE COURT: Overruled. Go ahead and finish.

5 THE WITNESS: You spend a fair amount of time
6 preparing to speak to somebody prior to going to speak to them
7 so that you can at least have the most productive conversation
8 with them that you can possibly have.

9 THE COURT: Okay. With that on the books, let's take
10 a quick sidebar.

11 (Proceedings heard at sidebar:)

12 THE COURT: All right. I just want to make sure that
13 any additional examination on why he -- why the agent wanted
14 to interview Mr. Jordan, I think you ought to stay away,
15 unless the defense wants this, from highlighting that the
16 defendant is, I think in the words of the testimony that was
17 just delivered, "the only person who can tell me what's
18 happening in the trades."

19 And the reason for that is if Mr. Jordan decides not
20 to testify, then it kind of puts a highlight on him exercising
21 that right. So unless the defense wants that point out there,
22 which I think is quasi-consistent with one of the themes, but
23 if you -- if you don't want that, I do think it's proper to
24 warn the government to stay away from that point any more.

25 So what's the defense's take on that?

1 MS. CHURCH: Your Honor, we think the warning is
2 proper here.

3 THE COURT: Okay. Does that make sense,
4 Mr. Fenton -- I'm sorry, Ms. Church. I cut you off. Go
5 ahead.

6 MS. CHURCH: Thank you, your Honor. No, that's it.

7 THE COURT: Okay. So, yeah, Mr. Fenton, does that
8 make sense? I'm not implying that obviously you had any
9 intent, but the way it came out, it just was a red flag.

10 MR. FENTON: No, I completely understand, your Honor,
11 and that's not something that we're planning to go back to.

12 THE COURT: Okay. All right. Thank you.

13 (Proceedings heard in open court:)

14 THE COURT: The sidebar noise just seems to get
15 louder and louder, doesn't it?

16 All right. Mr. Fenton, you can proceed.

17 MR. FENTON: Thank you, your Honor. At this point,
18 we're going to focus on the interview, so it might be
19 appropriate to give the instruction --

20 THE COURT: Okay.

21 MR. FENTON: -- that the parties have prepared.

22 THE COURT: Okay. Ladies and gentlemen, you're about
23 to hear some testimony about the interview. Mr. Jordan did
24 request that there be a break in the interview for a reason
25 that both sides agree was entirely appropriate. All right.

1 And the interview then, there was a first half and then there
2 was a second half. It later resumed in the day. Okay. But
3 the break was entirely appropriate.

4 Okay. Mr. Fenton, you can proceed.

5 MR. FENTON: Thank you, your Honor.

6 BY MR. FENTON:

7 Q. Special Agent Luca, where did you decide to interview
8 Mr. Jordan?

9 A. So I decided to interview Mr. Jordan at his parents' house
10 which is where he was residing at the time.

11 Q. All right. And what time of day did you decide to
12 interview him?

13 A. So it was pretty early in the morning. It was first thing
14 in the morning, so it was roughly after 6:00, 6:00 a.m.,
15 probably somewhere between 6:00 and 6:30 in the morning.

16 Q. So can you explain to the jury, why would you interview
17 someone at their home and why would you interview somebody at
18 that time of the morning?

19 A. Sure. I guess I'll just start with the obvious. There's
20 probably no really good time and/or place to have somebody
21 show up and say that they're from the FBI, "I want to speak to
22 you." So part of, like, my thought process when I'm trying to
23 figure out when to approach somebody in order to speak to them
24 is to try to be as unintrusive as humanly possible.

25 And I get that, that there is really no unintrusive

1 way for me to do that, but that is -- that is part of my
2 thought process. And I say that because that plays into why I
3 decided to approach Chris at his residence and so early in the
4 morning.

5 I typically like to approach people in the morning
6 and at their home for a couple different reasons. One, that
7 is the place that they are most likely to be. Early in the
8 morning, unless they're staying out or away or traveling, most
9 of us are always home in the morning because you're sleeping
10 there and you wake up in the morning to go do whatever it is
11 that you have to do with life.

12 MS. CHURCH: Your Honor, I don't mean to interrupt
13 the witness, but we're having these long narrative answers, so
14 I'm objecting to the narrative answer.

15 THE COURT: Okay. Given the nature of the question,
16 the objection at this time is overruled.

17 All right. You can complete the answer.

18 THE WITNESS: Thank you, your Honor.

19 Where was I? The only places that you could
20 realistically attempt to interview somebody with an
21 approaching interview is either at their home, their office,
22 or later on in the evening when they're back at their house.
23 I don't like approaching people at their office --

24 MS. CHURCH: Objection. Relevance.

25 THE COURT: Okay. Overruled given the opening and

1 potential cross.

2 All right. Go ahead.

3 THE WITNESS: Thank you, your Honor.

4 I don't like to approach people at their office
5 because I feel like it exposes them to a lot of questions from
6 their employers and their coworkers, and I don't really want
7 to put people in that kind of scenario. It makes people
8 uncomfortable.

9 I don't like to just approach people on the street
10 because, frankly, if I just showed up and said, "Hi, I'm with
11 the FBI, I have questions for you," most people would not want
12 to speak to me in that moment and probably look to get away
13 from me.

14 At night, I don't really like to approach people at
15 night because, again, people have probably been out. They've
16 been working. They've been doing whatever it is that they're
17 doing during the day, and a lot of people are not -- not
18 wanting to speak to me. And I can tell you that from running
19 my investigations. A lot of people don't want to speak to me
20 at the afternoon because they want to eat dinner. They want
21 to see their families. They want to relax.

22 So the reason why I approached Chris at his parents'
23 house that morning was because, based on my experience as an
24 agent and doing my investigations, frankly, that was the least
25 bad option that I had that I thought was the least intrusive

1 option to speak to Chris.

2 BY MR. FENTON:

3 Q. And you approached him at his parents' house because
4 that's where he was living, you said, right?

5 A. That's correct.

6 Q. So that was effectively his residence at that time?

7 A. That was his residence.

8 Q. Okay. So is this all consistent with how you typically do
9 approaches when you want to interview somebody?

10 A. That's correct. Like I said, most of my approaches, from
11 experience in having failed doing it other ways many other
12 times, I found that most successful ways happen by approaching
13 people first thing in the morning before they get on with
14 their days.

15 Q. All right. So when you went to interview Mr. Jordan, did
16 you go alone?

17 A. I did not.

18 Q. Who did you go with?

19 A. So I took another agent with me to go conduct that
20 interview.

21 Q. And what is the purpose of taking that other agent?

22 A. So there's a couple reasons that you would take another
23 agent with you, the first being safety. Obviously, any
24 situation, you want to be aware that you're going into someone
25 else's residence and potentially having hard conversations

1 with people. Obviously, you want to have somebody else there
2 in the worst case scenario that, God forbid, something
3 happens.

4 More importantly than that is by policy, the way I
5 was trained at headquarters and during the academy, you bring
6 a second with you so that they can focus on doing things like
7 take the notes and listening to the answers that that
8 individual is giving you and then documenting it in their
9 notes to later be written in a 302.

10 Me as the interviewee, I'm focused on the
11 conversation with the individual, listening to their
12 responses, and going back and forth with them and having
13 conversation. The other agent that's there, his primary
14 mission is to just be listening to all that and writing those
15 notes down and then also serving as a secondary witness to
16 that conversation.

17 Q. So it's essentially a division of labor?

18 A. Correct. That's the easy way to say it.

19 Q. Are there other ways to memorialize an interview other
20 than handwritten notes or typed notes?

21 A. Yes, there are.

22 Q. What's another way?

23 A. So another way that you can memorialize an interview is
24 through a recording of some way, whether it's an audio
25 recording or a video recording.

1 Q. Okay. And is there an FBI policy that requires you to do
2 one or the other?

3 A. No, not in the instance where you don't have custody of an
4 individual. So in a noncustodial situation, there's no policy
5 that says you must record an interview.

6 Q. And do you typically have -- do you typically memorialize
7 your interviews with handwritten notes or typed notes?

8 A. Yes.

9 Q. As opposed to like an audio recording?

10 A. Yes. By policy, if you're doing an interview and you
11 don't have a recording, there needs to be notes of that
12 interview, and then those notes are then created into an
13 FD-302.

14 Q. And why is it that you prefer to do that?

15 A. So in my experience as an agent, I find it to be the most
16 accurate version of it and with the least amount of
17 distractions.

18 From other times that I've done interviews in which
19 I've had recorded individuals, be it audio or video, I found
20 using the recording device to be an absolute distraction to my
21 job to conducting a productive interview. I found it that I
22 worry more about, is the device working, is it capturing good
23 audio/video than paying attention to what the individual is
24 saying to me and responding to them in kind.

25 Q. All right. Let's talk about when you first made contact

1 with the defendant. So you said you approached his parents'
2 home, and then what were you wearing when you approached his
3 parents' home?

4 A. Suits, a suit like this.

5 Q. Just like you are today?

6 A. Probably.

7 Q. And what happened next?

8 A. So initially, we knocked on the front door, and there was
9 no answer at the front door. After a reasonable amount of
10 time, we moved around to the back door. I think there was a
11 doorbell back there, but we rang the bell or knocked on the
12 back door. And after some time, Chris' father had come down
13 and answered the door.

14 Q. Okay. So Mr. Jordan's father answers the door. And what
15 do you say to his father?

16 A. So we identify ourselves as FBI agents. I take out my
17 creds. I show Chris' father my credentials, explain to him
18 that obviously we're from the FBI and that we were here to
19 speak to Chris.

20 Q. Okay. And what happened next?

21 A. Mr. Jordan led us into the house, said "Come in." And he
22 led us upstairs to a bedroom that Chris was in.

23 Q. All right. So Mr. Jordan's father leads you to the
24 bedroom. And does he open the door?

25 A. Yes. So Mr. Jordan opened the door, said, "Chris, the FBI

1 is here," and then left.

2 Q. Okay. And what did you see when he opened the door?

3 A. So when he opened the door, we could see into the room.

4 Mr. Jordan was in the bed but awake. I don't know if he was
5 awake previously or if he woke up when his father opened the
6 door, but we could see in the room. He had a pair of, like,
7 mesh athletic shorts on and a T-shirt. He was in bed. There
8 was a TV that was on in the room as well, and there was a
9 dresser in there.

10 Q. Okay. So you make contact with him. And what do you say?

11 A. Yeah. So again, we identified ourselves to Mr. Jordan,
12 again, showed him our credentials, said that we were from the
13 FBI and that his name had come up in an investigation, and we
14 would like to speak to him.

15 Q. And was he agreeable to speak?

16 A. Yes.

17 Q. Okay. So did you do the interview in his -- in that
18 bedroom?

19 A. No. We moved downstairs back to the first floor and were
20 in the living room. And we sat around a coffee table in the
21 living room on some sofas and chairs.

22 Q. Okay. So let's talk about, a little bit more about where
23 you conducted the interview. So you said you were in the
24 living room. Who was there when you actually conducted the
25 interview?

1 A. So during that, it was myself, the other agent, and
2 Mr. Jordan that were physically in the space, but I believe
3 Mr. Jordan's parents were also home as well at that time. I
4 just didn't know where they were in the house.

5 Q. Okay. So is it fair to say that you had privacy?

6 A. Yeah.

7 Q. But you weren't alone?

8 A. No.

9 Q. Okay. And at this point, did it appear to you that
10 Mr. Jordan was awake and alert?

11 A. Yeah. At that point, you know, by the time we were
12 downstairs, Chris was very much conversational with us at that
13 point. I think that's where we got out that there was a prior
14 engagement that he had to attend to within a relatively short
15 period of time of us speaking.

16 So we knew that before the interview actually began
17 that we had a compressed timeline. So, yes, Chris was --
18 Chris was awake and focused, like, when we were having that
19 conversation.

20 Q. All right. So did you discuss how long you would talk?

21 A. Yeah. I think he said he had to be somewhere by a certain
22 time. So we had talked about, you know, how much time he
23 thinks he would need in order to get ready and stuff. So I
24 think we had a hard stop for roughly about an hour from the
25 time that we spoke to the time that he needed to end that

1 conversation so that he could get to where he needed to be.

2 Q. All right. So at that point, when you know that you have
3 about an hour with Mr. Jordan, did you come up with a plan for
4 how you wanted to spend that hour?

5 A. Yeah. In my head, knowing that I had a relatively short
6 window of time -- I know an hour might seem like a long time,
7 but it goes by pretty quick -- I knew I just wanted to, like,
8 kind of, like, lay the foundation and speak to Chris in
9 general at that point. I didn't want to rush through my
10 interview and ask him questions in a hasty fashion that would
11 have been unfair, not only to him but to myself.

12 So in my head before we even started speaking,
13 knowing that I had a compressed timeline, I knew that I
14 basically was going to spend that time just building rapport
15 with Chris and kind of laying a foundation for something more
16 involved in the future.

17 Q. All right. So did you bring anything with you to show him
18 that day?

19 A. I did.

20 Q. What did you bring him -- bring with you?

21 A. So I brought a copy of the top 25 list that we had
22 created, and then I also brought along that sample set of
23 trading events on those charts.

24 Q. And was that GX 83 that we just looked at?

25 A. That's correct.

1 Q. Okay. So when you brought that along, did you plan to
2 show that set of charts to him in the morning session --

3 A. Yeah.

4 Q. -- after you learned that you only had an hour?

5 A. No. So my initial plan was obviously to spend time with
6 Chris in going through that, but having learned that we had a
7 compressed timeline, I chose not to show those charts in that
8 initial hour-long conversation.

9 Q. All right. So you begin the interview. Did you explain
10 to Mr. Jordan why you were there?

11 A. I did.

12 Q. And what did you tell him?

13 A. I said that his name had come up in an investigation, and
14 we were there following up with regards to his trading
15 activity, specifically spoofing and/or layering.

16 Q. All right. At some point, did he ask you if he was in
17 trouble?

18 A. He did.

19 Q. What did he say to you?

20 A. He asked if he would potentially be going to jail. And I
21 gave Chris the only answer that I could realistically give him
22 and be truthful, and my answer to him was, "Potentially." As
23 an agent, my -- I'm just a small piece of the equation.

24 MS. CHURCH: Objection to the continuing narrative.

25 THE COURT: Okay. That -- the answer is concluded.

1 Next question.

2 BY MR. FENTON:

3 Q. Okay. And do you recall Mr. Jordan's reaction to you
4 showing up?

5 A. He was surprised.

6 Q. And did he tell you why he was surprised?

7 A. So Mr. Jordan was under the impression that his issues
8 with regard to his trading had resolved themselves after he
9 had been deposed by the CFTC.

10 Q. Okay. And what is the CFTC?

11 A. So it's the Commodities Futures Trading Commission. It's
12 the regulatory agency that oversees commodities trading.

13 MR. FENTON: Your Honor, this might be a good time
14 for --

15 THE COURT: That makes sense. Ladies and gentlemen,
16 you're now about to hear some testimony relating to a separate
17 civil investigation that was conducted by the United States
18 Commodities Futures Trading Commission, which as you now know
19 is the CFTC. This investigation was into complaints about
20 silver prices.

21 The CFTC's separate investigation was not part of the
22 Department of Justice's investigation that led to the
23 prosecution in this case, and the complaints about silver
24 prices are not at issue in this case. During its
25 investigation, the CFTC interviewed a number of individuals

1 including Mr. Jordan.

2 So the testimony you're about to hear -- well, so for
3 your background information, the CFTC closed the inquiry
4 without bringing any claims against any company or person. So
5 you should not otherwise consider the conclusion of the CFTC's
6 investigation in your deliberations.

7 Okay. You can go ahead.

8 THE COURT REPORTER: Can I have one moment?

9 THE COURT: Oh, of course.

10 (Pause.)

11 THE COURT: Okay.

12 BY MR. FENTON:

13 Q. All right. So at some point there in the living room, did
14 you ask Mr. Jordan whether he had participated in spoofing?

15 A. I did.

16 Q. And did Mr. Jordan directly respond to your question?

17 A. Not initially, no.

18 Q. So he did not directly respond to your question, but did
19 Mr. Jordan appear to understand what you meant when you used
20 the word "spoofing"?

21 A. He did.

22 Q. And what did he say?

23 A. So he had said that spoofing essentially was placing false
24 orders in the market which he would wait and see if people bit
25 the bait.

1 Q. Okay. And was Mr. Jordan's explanation of spoofing
2 consistent with your understanding of spoofing?

3 A. It was.

4 Q. And after Mr. Jordan explained spoofing, did you and
5 Mr. Jordan move on to some other topics?

6 A. We did.

7 Q. Okay. Now, at some point, did you take the break that you
8 had agreed upon?

9 A. We did.

10 Q. And was that about one hour into the interview as planned?

11 A. It was approximately about an hour.

12 Q. Okay. And how did you leave things with Mr. Jordan?

13 A. So we had exchanged phone numbers and agreed that, you
14 know, we would touch base later on in the day, you know, if he
15 was available.

16 Q. And so was he supposed to call you to meet up later that
17 day?

18 A. Yeah, because it was contingent upon him freeing up from
19 his previous engagement.

20 Q. Okay. So you were essentially waiting on him to call?

21 A. Correct.

22 Q. Okay. So did -- the agent that accompanied you to visit
23 Mr. Jordan's parents' home, did he take notes?

24 A. He did.

25 Q. And what type of notes did he take?

1 A. He took -- during that morning session, he took
2 handwritten notes.

3 Q. Okay. So what did you do after you left Mr. Jordan's
4 parents' house?

5 A. So after we left his parents' house, we drove back to our
6 office in lower Manhattan in the city. And at that point, the
7 other agent started drafting a copy of the 302 from his notes
8 that he had taken at that point.

9 We had talked about how we were going to approach the
10 afternoon session if Chris did, in fact, call us back. I know
11 we had left it that he might, but there was a chance obviously
12 he didn't. But he did. And, yeah, we just kind of hung
13 around and waited for Mr. Jordan to reach back out to us to
14 meet up.

15 Q. All right. So you mentioned the term 302. What again is
16 a 302?

17 A. So the 302 is basically, it's a summary of the interview.
18 It's a summary of statements that the witness had said to the
19 agents based on the questions that we asked during that
20 conversation.

21 Q. All right. So approximately how long were you back in New
22 York City waiting for Mr. Jordan?

23 A. We were in the city for probably four or five hours.

24 Q. All right. So at some point, did Mr. Jordan call you?

25 A. He did.

1 Q. And what did he say?

2 A. We just agreed that we would meet up at a Starbucks in a
3 town adjacent to his at approximately 3:00 p.m. that same day.

4 Q. Okay. So who chose the time?

5 A. Mr. Jordan.

6 Q. And who chose the place?

7 A. Mr. Jordan.

8 Q. So you said that you were going to meet up at a Starbucks.
9 Is that unusual to meet a witness at Starbucks?

10 A. No, especially if it's being driven by the witness. It's
11 absolutely not unusual. I've met people at coffee shops,
12 delis --

13 MS. CHURCH: Objection to the narrative response,
14 your Honor.

15 THE COURT: Okay. Sustained.

16 You can ask the next question.

17 BY MR. FENTON:

18 Q. All right. What did you do next?

19 A. So we went back out to -- we went out to that Starbucks in
20 New Jersey and sat down with Mr. Jordan.

21 Q. All right. Did you bring an agent along with you this
22 time?

23 A. I did.

24 Q. And was it the same one as before?

25 A. It was.

1 Q. Why did you bring the agent?

2 A. Because again, during an interview, you want to have
3 another person there that can separate the responsibilities or
4 the duties. Obviously, I brought the same agent with me
5 because he had been there for the morning session, and I
6 wanted to keep that consistency.

7 Q. Okay. And when you were preparing for the interview, did
8 you come up with a plan for how you were going to spend your
9 time with Mr. Jordan for this part of the afternoon?

10 A. I did.

11 Q. What was your plan?

12 A. So again, we were going to obviously go back and sit down
13 with Mr. Jordan, but the main focus of the afternoon session
14 was to go through the trading episodes and get Mr. Jordan's
15 explanation as to why he traded in this manner using the
16 examples that we had in our hand.

17 Q. All right. Can you describe for the jury, please, what
18 happened when you arrived at Starbucks?

19 A. So when we got to the Starbucks, I don't remember if we
20 had got there before Mr. Jordan or if he was there waiting for
21 us, but there was a set of tables off to the side that weren't
22 in the main seating area, and we wound up ultimately choosing
23 to sit in that area. And we sat down around the table and
24 began to conduct the second half of the interview.

25 Q. And how did you begin the conversation with Mr. Jordan?

1 A. So, you know, I started again by saying, you know, I
2 thought he was in a good position to potentially help the
3 investigation, and at the end of the day, I needed him to
4 be -- to be truthful to me and ultimately not to lie. That's
5 the main thing whenever I conduct an interview --

6 MS. CHURCH: Objection, your Honor, to the narrative
7 response.

8 THE COURT: Okay. The answer is concluded.

9 Next question.

10 BY MR. FENTON:

11 Q. All right. Did you show the chart -- did you show
12 Mr. Jordan the charts that you brought with you?

13 A. I did.

14 Q. And is that Government Exhibit 83?

15 A. It is.

16 MR. FENTON: All right. Can we pull this up again
17 for the jury?

18 BY MR. FENTON:

19 Q. So these are the charts that you showed Mr. Jordan?

20 A. They are.

21 Q. And can you describe for the jury how you showed the
22 charts to Mr. Jordan?

23 A. Sure. So it's important that even though that Chris had,
24 you know, 17 years working in the industry, I didn't doubt
25 that he understood what was being depicted on the chart, but I

1 did have to explain to him, you know, what exactly is being
2 shown in this chart so that he could fully understand what it
3 was that he was looking at and give me, you know, sufficient
4 and correct answers without any confusion.

5 Q. Did Mr. Jordan acknowledge that these were, in fact,
6 trades that he had entered?

7 A. He did.

8 Q. Okay. And did Mr. Jordan acknowledge that he had placed
9 trades that he intended to cancel?

10 A. He did.

11 Q. What specifically did he say to you?

12 A. So he said that, you know, he had placed orders, small
13 iceberg orders on one side of the market and larger
14 non-iceberg orders on the other side of the market in which he
15 intended to cancel.

16 Q. And so Mr. Jordan acknowledged that his trades followed
17 this pattern, this spoofing pattern?

18 A. He did.

19 Q. Okay. And did Mr. Jordan explain why he placed orders
20 that he intended to cancel?

21 A. He did.

22 Q. And what did he say to you?

23 A. He said that he placed those orders in order to mislead
24 the market, to outperform the algorithms, and to make -- and
25 to get the best possible fills for his boss, Ray Iyles.

1 Q. Okay. So when he said that he spoofed to mislead the
2 market, what was your understanding of what he meant?

3 A. That he was placing fake trades with the intent to cancel
4 them in order to mislead the market into believing there was a
5 false sense of supply or demand.

6 Q. And what does that false sense of supply or demand
7 achieve?

8 A. It helps him get his genuine orders filled.

9 Q. And when he said that he spoofed to outperform the algos,
10 what was your understanding of what he meant when he said
11 that?

12 A. So Chris had mentioned that there was a lot of trading
13 activity in the market that he believed to be associated to
14 algorithmic trading, and he couldn't outperform those
15 algorithms, so that he had to spoof in order to outperform the
16 algorithmic traders.

17 Q. Okay. When he said that he spoofed to get the best price,
18 the best fill for his boss, what did you understand that to
19 mean?

20 A. So he was the spot execution trader for Ray Iyles, and
21 occasionally Ray would give him orders in order to facilitate
22 trades. So Chris had said that he had spoofed the market in
23 order to get the best possible prices or executions for his
24 boss, Ray Iyles.

25 Q. Okay. So Mr. Jordan admitted to you that he spoofed and

1 that he spoofed to mislead the market, correct?

2 A. He did.

3 Q. Did you have any doubt --

4 A. No.

5 Q. -- about his admission?

6 A. Absolutely none.

7 Q. What happened next? Did you continue to speak to
8 Mr. Jordan?

9 A. Yeah. We spoke for at least another probably hour, hour
10 and a half. At that point, because I was confident that
11 Mr. Jordan had admitted to the conduct to me, I had shifted
12 the interview into a more cooperation mode setting. And me
13 and Mr. Jordan continued to talk more about things that he had
14 witnessed while working on those trading desks with regard to
15 other individuals and conduct that I was focused on in a
16 larger investigation.

17 Q. So in total, how long did you speak with Mr. Jordan that
18 day?

19 A. On that day, I'd say it was close to probably three hours.

20 Q. Okay. So it's about three hours across these two
21 meetings; is that fair?

22 A. Correct.

23 Q. Okay. So one hour in the morning; is that right?

24 A. Yes.

25 Q. And about two hours or so in the afternoon?

1 A. That's correct.

2 MR. FENTON: Okay. Your Honor, I'm going to move to
3 a new topic.

4 THE COURT: Okay. We can break then for the day.

5 Ladies and gentlemen, I'll just give you your daily
6 affirmation. Do no research into the case, not the law or the
7 facts or anything else. Do not discuss the case, not even
8 amongst yourselves. Please continue to take that north bank
9 of elevators and arrive by 8:45 tomorrow. Stay warm, and have
10 a good evening.

11 All rise.

12 (Proceedings heard in open court. Jury out.)

13 THE COURT: All right. You can step down. All
14 right.

15 Who is on tap for tomorrow after Mr. Luca finishes?

16 MR. FENTON: So the next witness is going to be David
17 King, who is the compliance officer from Credit Suisse, and
18 then Mark Catana, the compliance officer for JPMorgan.

19 THE COURT: All right. Okay. Anything for the
20 record?

21 MR. FENTON: Nothing from the government, your Honor.

22 THE COURT: For the defense?

23 MS. CHURCH: No, your Honor.

24 THE COURT: And just one thing, for all the witnesses
25 that you put on, do tell them that -- I mean, this shouldn't

1 come up very often, that they ought not thank me if I tell
2 them to complete an answer. So Mr. Luca slipped into that at
3 one point after I overruled an objection. So I don't want the
4 witnesses to thank me for anything. So just tell him and all
5 the witnesses you put on, likewise for the defense as well.

6 MS. CHURCH: Of course, your Honor.

7 MR. FENTON: Will do, your Honor.

8 THE COURT: I'll see you at 8:45 tomorrow.

9 (Proceedings adjourned from 4:26 p.m. to December 2,
10 2022, at 8:45 a.m.)

11 * * * * *

12 C E R T I F I C A T E

13 We, Carolyn R. Cox and Judith A. Walsh, do hereby
14 certify that the foregoing is a complete, true, and accurate
15 transcript of the proceedings had in the above-entitled case
16 before the Honorable EDMOND E. CHANG, one of the judges of
17 said court, at Chicago, Illinois, on December 1, 2022.

18 /s/ Carolyn R. Cox, CSR, F/CRR December 2, 2022

19 /s/ Judith A. Walsh, CSR, RDR, F/CRR December 2, 2022

20 Official Court Reporters

21 United States District Court

22 Northern District of Illinois

23 Eastern Division

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